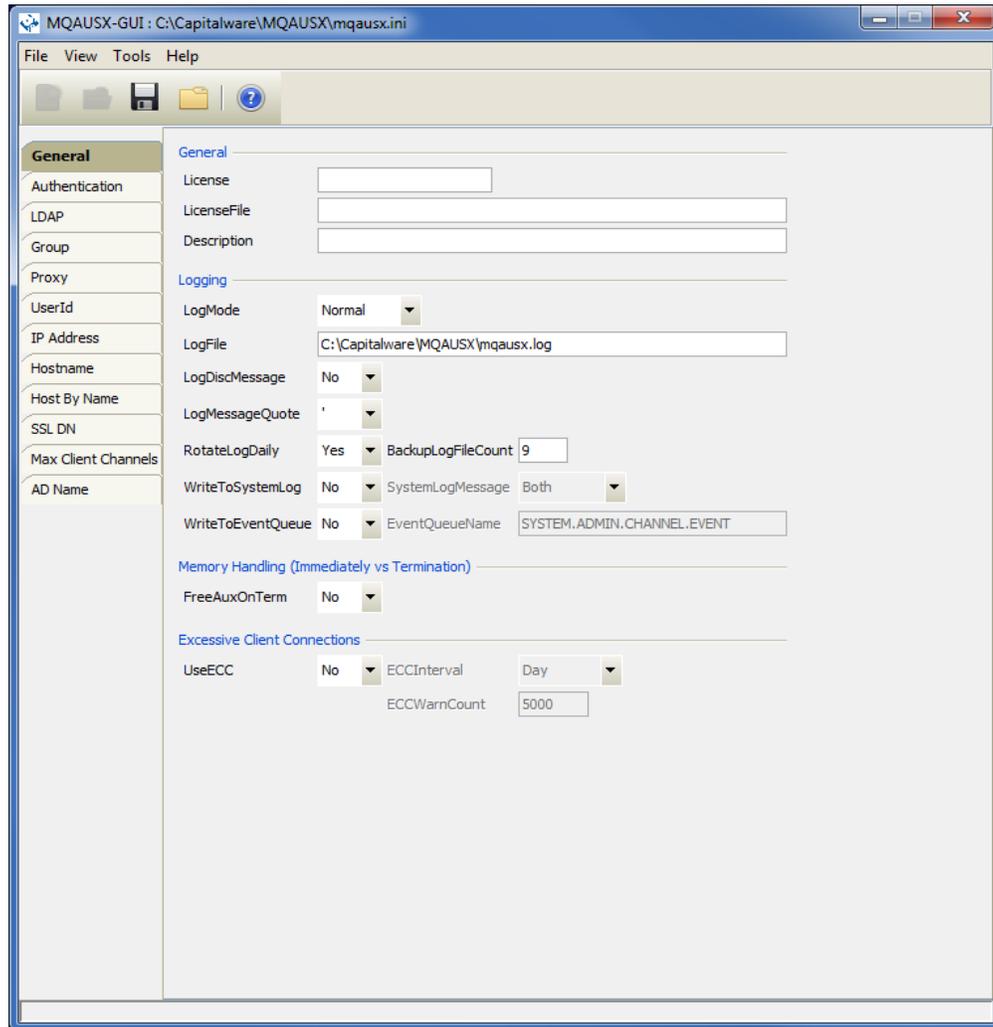


MQAUSX-GUI

User Guide



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1 Introduction

1.1 Overview

MQAUSX-GUI application allows the user to create or update MQAUSX IniFiles.

MQ Authenticate User Security Exit (MQAUSX) is a solution that allows a company to fully authenticate a user who is accessing a IBM MQ resource. It verifies the User's UserID and Password (and possibly Domain Name) against the server's native OS system, LDAP server, Microsoft's Active Directory, Quest Authentication Services (QAS), Centrify's DirectControl or an encrypted MQAUSX FBA file.

MQAUSX will operate with IBM MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2 in Windows, IBM i (OS/400), Unix and Linux environments. It works with Server Connection, Client Connection, Sender, Receiver, Server, Requester, Cluster-Sender and Cluster-Receiver channels of IBM MQ queue manager.

MQAUSX-GUI creates or updates IniFiles that are located on server-side security exit.

MQAUSX-GUI can run on any platform that supports Java v1.6 (or higher). This includes: Linux, Mac OS X and Windows Vista/7/8/8.1/10.

2 Installation

This chapter will describe the installation and configuration (optional) of MQAUSX-GUI. For Windows users, the installation of MQAUSX-GUI is very simple and straightforward. Other Operating Systems will need to unzip the downloaded software package.

2.1 Prerequisites

This section lists the required hardware and software components needed to run the MQAUSX-GUI application.

2.2 Software

The following third party software components must be installed in order to properly run MQAUSX-GUI:

- Java Runtime Environment (JRE) 1.6 (or higher) or Java 2 SDK, Standard Edition (J2SE) v1.6 (or higher)

2.3 Hardware / OS

MQAUSX-GUI is capable of running on the following hardware platforms that support Java v1.6 (or higher):

- Linux
- Mac OS X
- Windows Vista, 7, 8, 8.1 & 10

2.4 Setting Up and Running the Application

The following section provides instructions on installing and running the MQAUSX-GUI application.

2.4.1 For Windows Users:

- Run the install program called: **mqausxgui-setup-withjre.exe**
- The installer should follow the standard Windows install procedures and provide default values for the users.
- When the install program has installed MQAUSX-GUI, there will be a newly created folder under **Start -> All Programs** called **MQAUSX-GUI**.
- To run **MQAUSX-GUI**, select the **MQAUSX-GUI** icon from within the **MQAUSX-GUI** folder.

2.4.2 For Linux and Max OS X (requires JRE/JDK):

- MQAUSX-GUI is provided as a zip file: **mqausxgui.zip**
- To unzip the file, open a shell prompt and execute the following commands:

```
unzip mqausxgui.zip
```

- When the unzip command has finished, there should be a directory tree as follows:

```
Capitalware/MQAUSX-GUI
```

- Change directory by typing the following:

```
cd Capitalware/MQAUSX-GUI
```

- Before running MQAUSX-GUI for the first time, you need to add the execute attribute to the mqausxgui.sh shell scripts. Type the following:

```
chmod +x mqausxgui.sh
```

- To run **MQAUSX-GUI** from the **Capitalware/MQAUSX-GUI** directory, then type the following:

```
./mqausxgui.sh
```

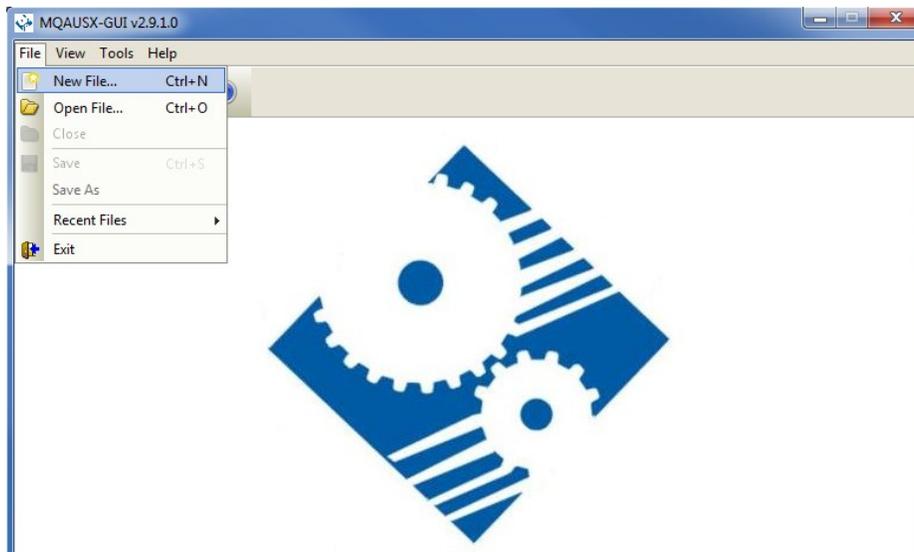
3 Creating / Updating IniFiles

This chapter will describe the how to create and/or update IniFiles.

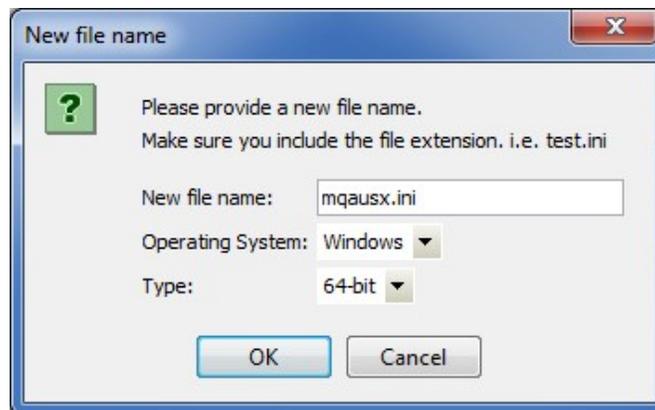
3.1 New IniFile

This section will describe how to create a new MQAUSX IniFile. The IniFile can be for a local or remote MQAUSX implementation.

From the main menu of MQAUSX-GUI, select **File** then **New File**



The following is the New IniFile panel:



Fill in the following information:

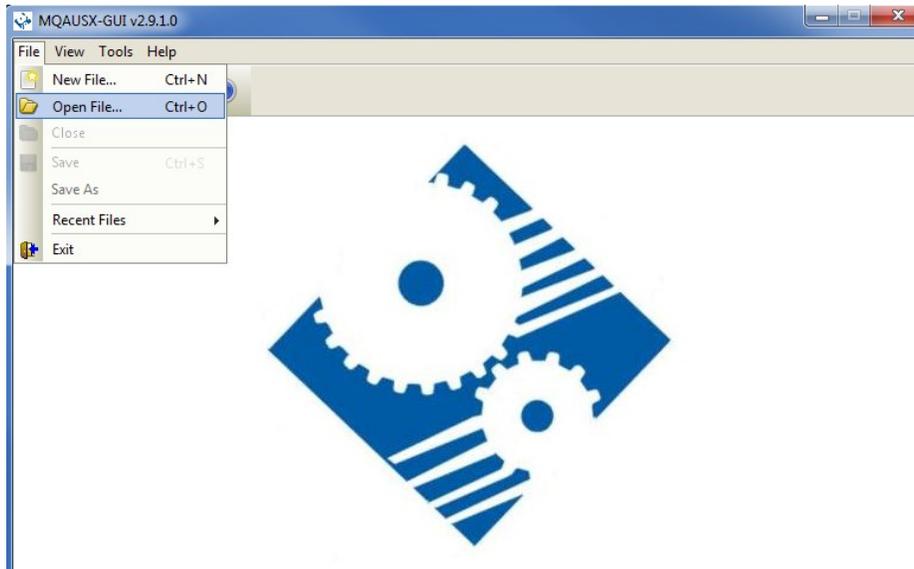
- Input a file name including the extension of '.ini'
- Select the Operating System
- Choose between a 32-bit or 64-bit environment

Finally, click the **Ok** button to create and open the new MQAUSX IniFile.

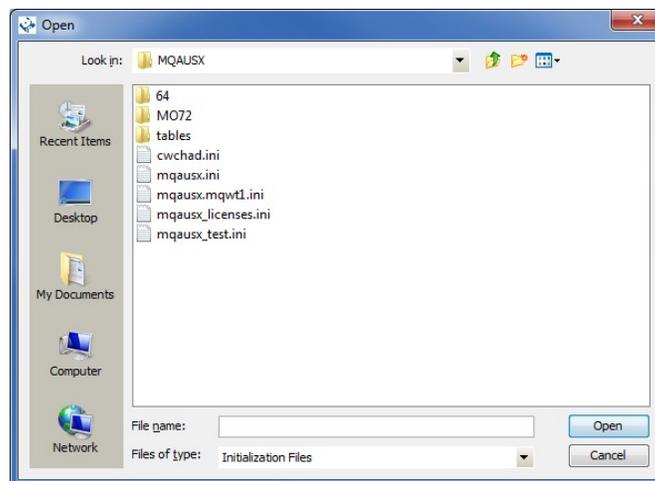
3.2 Open an IniFile

This section will describe how to open a MQAUSX IniFile to be viewed or edited. The IniFile can be for a local or remote MQAUSX implementation.

From the main menu of MQAUSX-GUI, select **File** then **Open File**



The following is the **Open** dialog box:

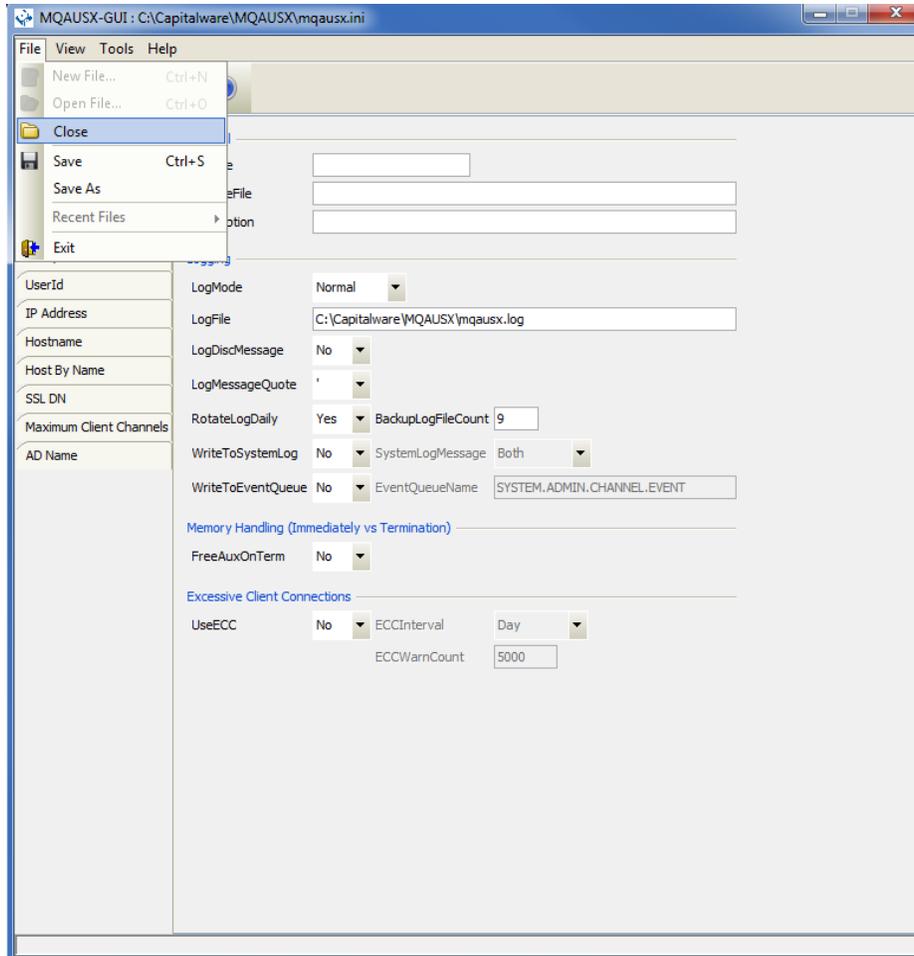


Select the IniFile that you wish to view / edit and then press the **Open** button.

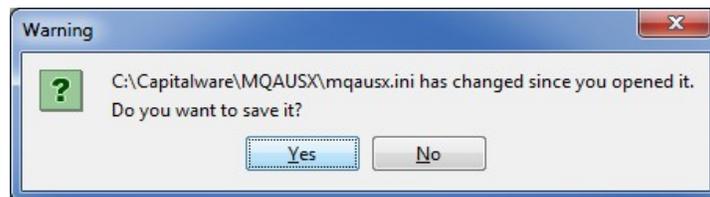
3.3 Close an IniFile

This section will describe how to close a MQAUSX IniFile.

From the main menu of MQAUSX-GUI, select **File** then **Close**



If the user has altered the IniFile then the user will be presented with the following dialog box:



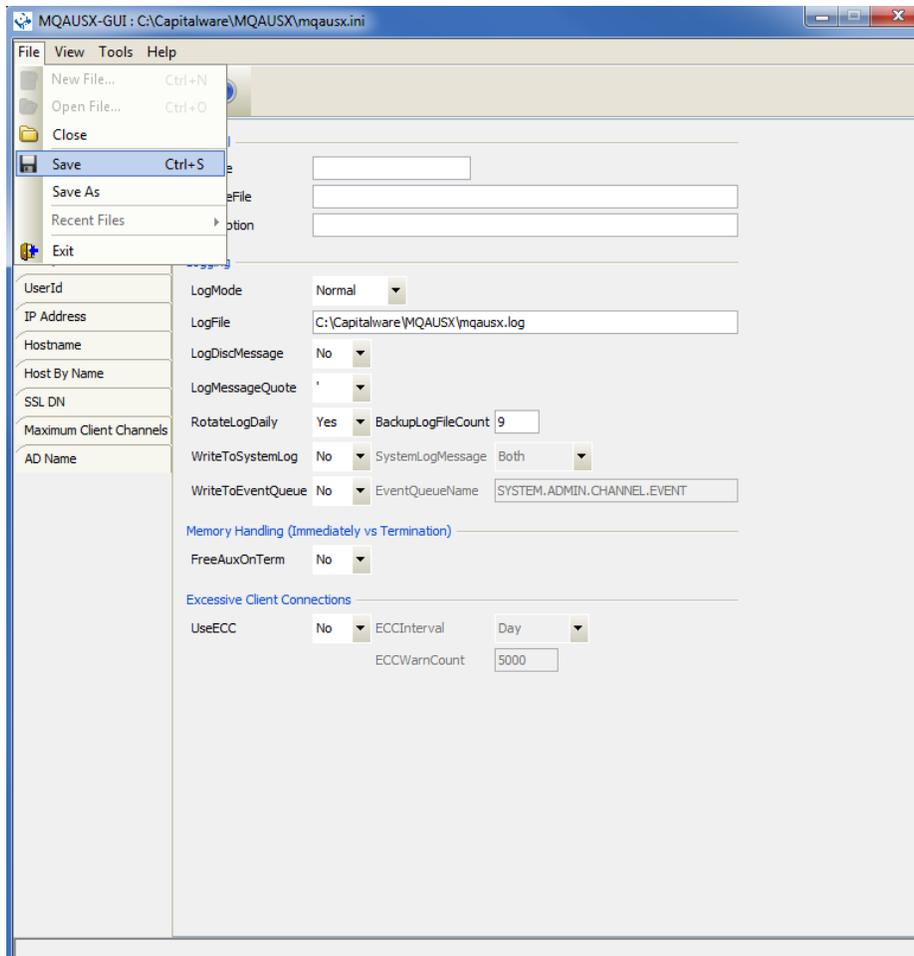
Select **Yes** to save the changes otherwise select **No**.

The MQAUSX-GUI program will make a backup of the original file in the same directory called: *{inifilename}.backup*

3.4 Save IniFile

This section will describe how to save an open MQAUSX IniFile.

From the main menu of MQAUSX-GUI, select **File** then **Save**



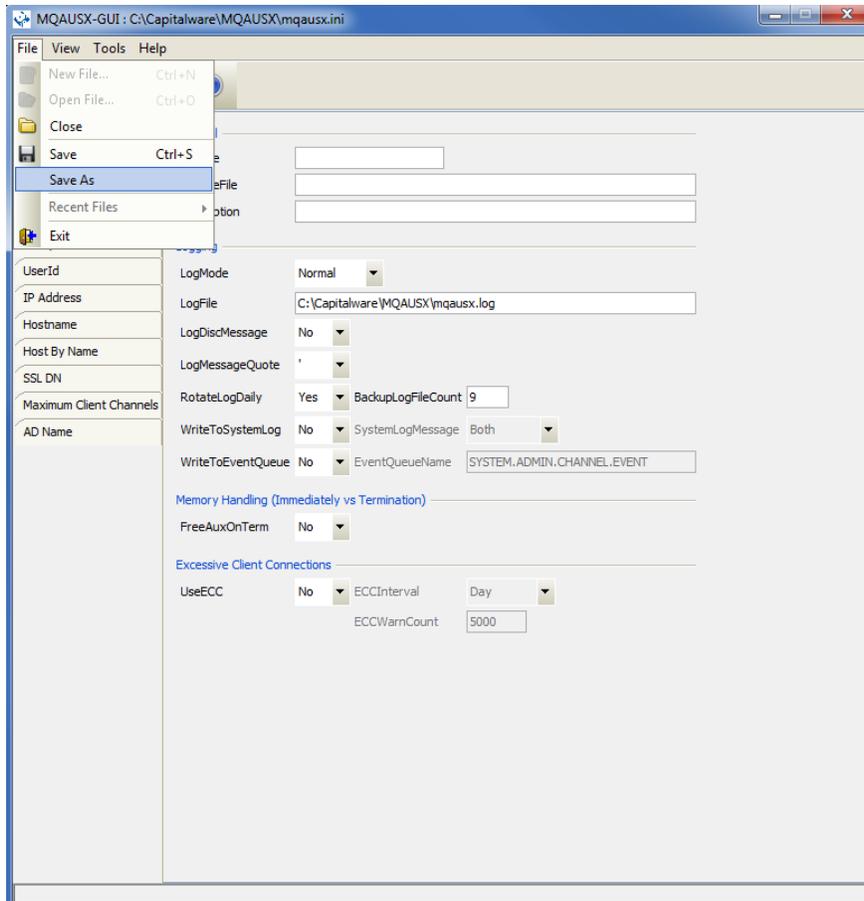
The parameter information will be saved to the IniFile.

The MQAUSX-GUI program will make a backup of the original file in the same directory called: *{inifilename}.backup*

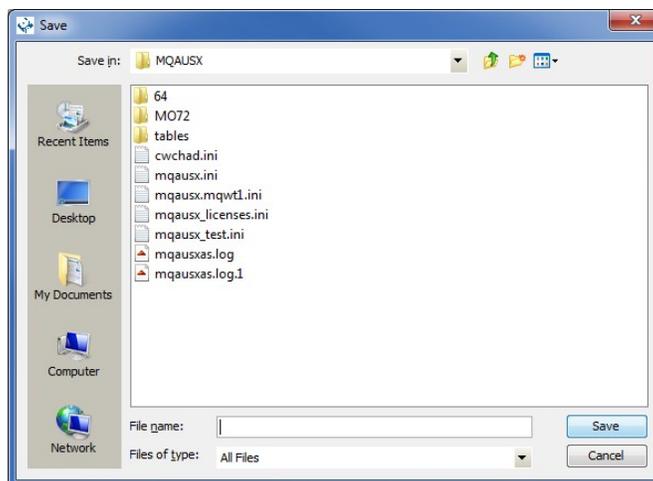
3.5 Save As IniFile

This section will describe how to save an open MQAUSX IniFile.

From the main menu of MQAUSX-GUI, select **File** then **Save As**



Select / Input the IniFile name that you wish use then press the **Save** button.



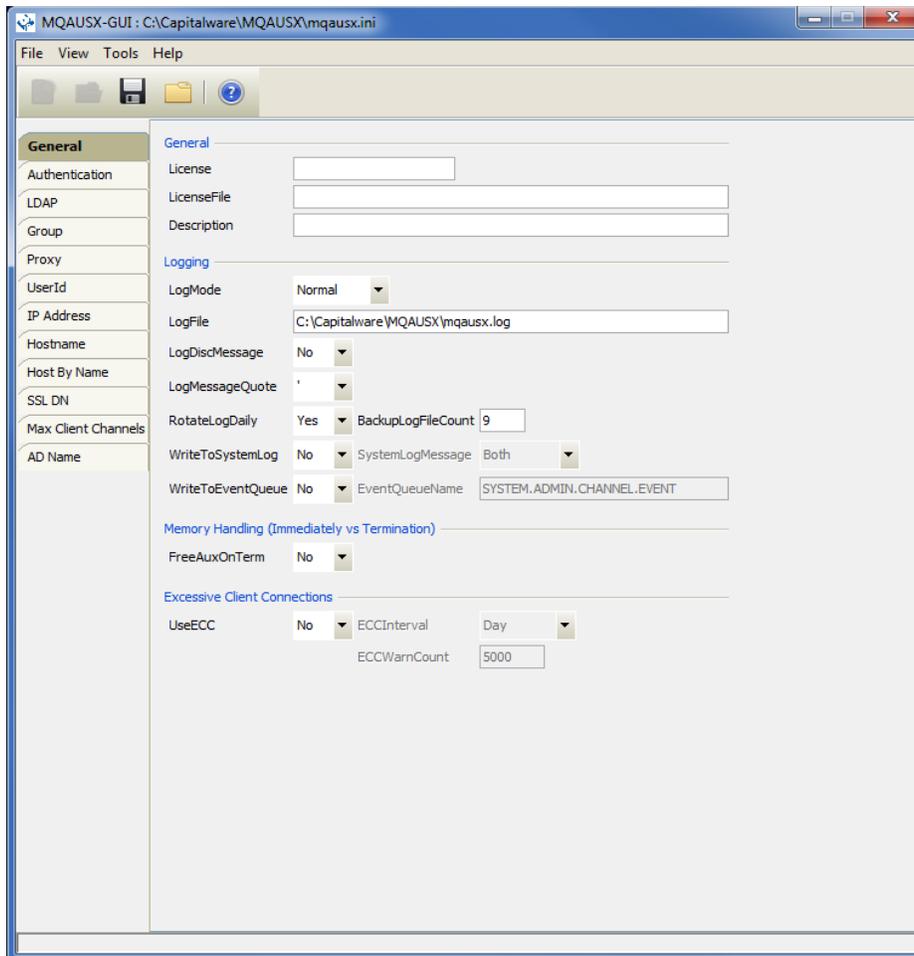
4 Tabs

This chapter will describe the various parameters on each tab.

4.1 General Tab

This section will describe various parameters on the General tab of a MQAUSX IniFile.

The following is a General Tab with default values:



The following are the IniFile parameters on the General Tab:

4.1.1 General

This section describes the general keywords and their values.

- **License key** is provided by Capitalware Inc. and is the mechanism on to license MQAUSX to a particular queue manager. Your license will look something like: 0000-AAAA-BBBBBBBB (Note: This is a sample license only and will NOT work).
- **LicenseFile** specifies the location of License file that contains all of the customer's license keys. The following are the default values for LicenseFile:
 - For Windows: C:\Capitalware\MQAUSX\mqausx_licenses.ini
 - For IBM MQ 32-bit on Unix and Linux: /var/mqm/exits/mqausx_licenses.ini
 - For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqausx_licenses.ini
 - For IBM i: /QIBM/UserData/mqm/mqausx/mqausx_licenses.ini
- **Description** parameter is optional and is not used by MQAUSX. It can be used to provide a brief description / purpose of the IniFile.

4.1.2 Logging

This section describes the keywords related to logging and their values.

- **LogMode** specifies what type of logging the user wishes to have. LogMode supports 4 values: Quiet, Normal, Verbose and Debug. The default value is Normal.
- **LogFile** specifies the location of the log file. The default is as follows:
 - For Windows: C:\Capitalware\MQAUSX\mqausx.log
 - For IBM MQ 32-bit on Unix and Linux: /var/mqm/exits/mqausx.log
 - For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqausx.log
 - For IBM I: /QIBM/UserData/mqm/mqausx/mqausx.log

Token Replacement for LogFile keyword:

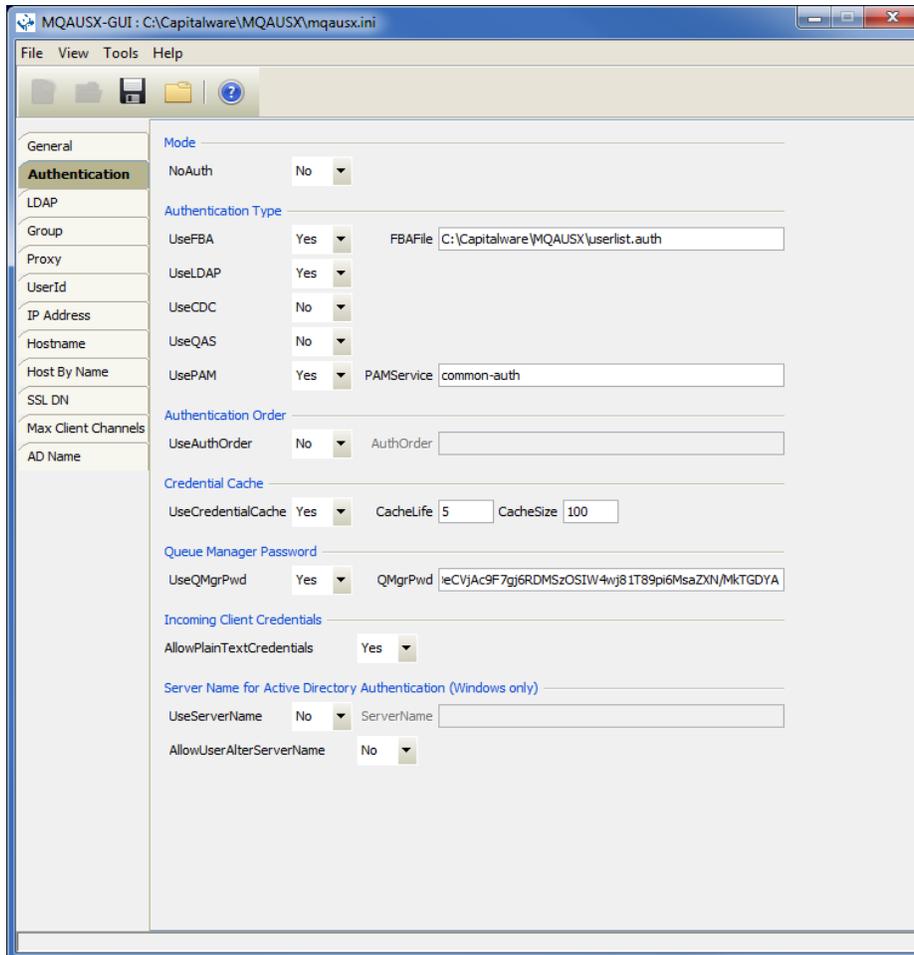
- **%QM%** - Substitutes the name of the queue manager
 - **%CHL%** - Substitutes the name of the channel
 - **%UID%** - Substitutes the UserID
 - **%PID%** - Substitutes the Process ID
 - **%TID%** - Substitutes the Thread ID
- **LogDiscMessage** specifies whether or not MQAUSX write a disconnect message when the client application closes the channel. The default value is No.
 - **LogMessageQuote** specifies the type of quote (single or double) to be used on the log message. The default value is ' (single quote).
 - **RotateLogDaily** specifies whether or not MQAUSX when auto-rotate the log files. The default value is Yes.

- **BackupLogFileCount** specifies the number of backup log files to be kept / retained. The default value is 9.
- **WriteToSystemLog** specifies for each connection attempt that a log entry be written to the system log.
 - For Windows this would be the **Event Log**
 - For Unix and Linux this would be the **syslog**.
- **SystemLogMessage** specifies what messages will be written to the system log. SystemLogMessage supports 3 values: “Both”, “Accepted Only”, and “Rejected Only” messages. The default value is Both.
- **WriteToEventQueue** specifies for each failed connection attempt that a log entry be written to the specified event queue.
- **EventQueueName** specifies the name of the queue that the event message will be written to. The default is as follows: 'SYSTEM.ADMIN.CHANNEL.EVENT'.
- **FreeAuxOnTerm** specifies whether the auxiliary memory is to be freed immediately or on termination. The default value is 'N'.
- **UseECC** enables excessive client connections feature. The default value is 'N'.
- **ECCInterval** specifies a time interval to monitor the incoming number of connections. Valid values are D/H/M (Day, Hour and Minute). The default value is 'D'.
- **ECCWarnCount** specifies a count which, when exceeded, will cause an alert to be generated. The default value is 5000.

4.2 Authentication Tab

This section will describe various parameters on the Authentication tab of a MQAUSX IniFile.

The following is an Authentication Tab with default values:



The following are the IniFile parameters on the Authentication Tab:

4.2.1 Mode

This section describes the keywords and their values.

- **NoAuth** allows the MQ Administrator to disable authentication in the server-side security exit. *Be very careful when disabling authentication because the connecting user will not need a client-side security exit to make a valid connection to the channel.* This is controlled by the IniFile's property keyword 'NoAuth'. Setting 'NoAuth' to 'Y' (Yes) will disable server-side authentication.

4.2.2 Authentication Type

This section describes the necessary steps to enable UserId and Password against a target system.

- **UseFBA** allows the UserId and Password to be verified against a MQAUSX file
- **FBAFile** specifies the file name and location of the encrypted FBA file to do the UserId and Password verification i.e. FBAFile=c:\fba.enc
- **UseLDAP** allows the UserId and Password to be verified against a centralized LDAP server.
- **UseCDC** allows the company or MQ Admin to enable authentication against Centrifys DirectControl
- **UseQAS** allows the company or MQ Admin to enable authentication against Quest's Authentication Services.

4.2.3 Authentication Order

This section describes the necessary steps to enable UserId and Password against multiple authentication sources and the order in which these sources will be tested. Currently, MQAUSX supports 3 authentication sources: ldap, files and mqausx.

- **UseAuthOrder** allows the company or MQ Admin to select the order in which the authentication to security services will occur
- **AuthOrder** specifies which authentication method to be executed and the order of execution. AuthOrder supports the following 5 values:
 - **ldap** means the authentication will be against a LDAP server
 - **files** means the authentication will be against the local OS
 - **cdc** means the authentication will be against Centrifys DirectControl
 - **qas** means the authentication will be against Quest Authentication Services
 - **pam** means the authentication will be against Pluggable Authentication Modules (PAM)
 - **mqausx** means the authentication will be against MQAUSX formatted file (i.e. FBA).

Note: If more than one authentication method is specified for AuthOrder parameter then the authentication order will be from left to right.

4.2.4 Credential Cache

This section describes the necessary entries to enable credential cache within MQAUSX. MQAUSX will cache the user credentials (in an encrypted format) for 'x' minutes (default is 5 minutes) in shared memory.

- **UseCredentialCache** allows the MQAdmin enable credential caching in MQAUSX. UseCredentialCache supports 2 values [Y / N]. The default value is N.
- **CacheLife** specifies the "time to live" for the credentials in the cache. The default value is 5 minutes.
- **CacheSize** specifies the size of the cache. The default value is 100 entries.

4.2.5 Queue Manager Password

This section describes the necessary steps to enable a password for a queue manager.

- **UseQMGrPwd** allows the MQAdmin to assign a password to a queue manager. UseQMGrPwd supports 2 values [Y / N]. The default value is N.
- **QMGrPwd** specifies the encrypted password the MQAdmin is assigning to a queue manager. See Appendix D for details on creating the encrypted password.

4.2.6 Incoming Client Credentials

This section describes the necessary steps to enable reception of UserId and Password in plain text.

- **AllowPlainTextCredentials** allows the MQAUSX server-side component to accept UserId and Password in plain text (i.e. no client-side security exit)

4.2.7 ServerName

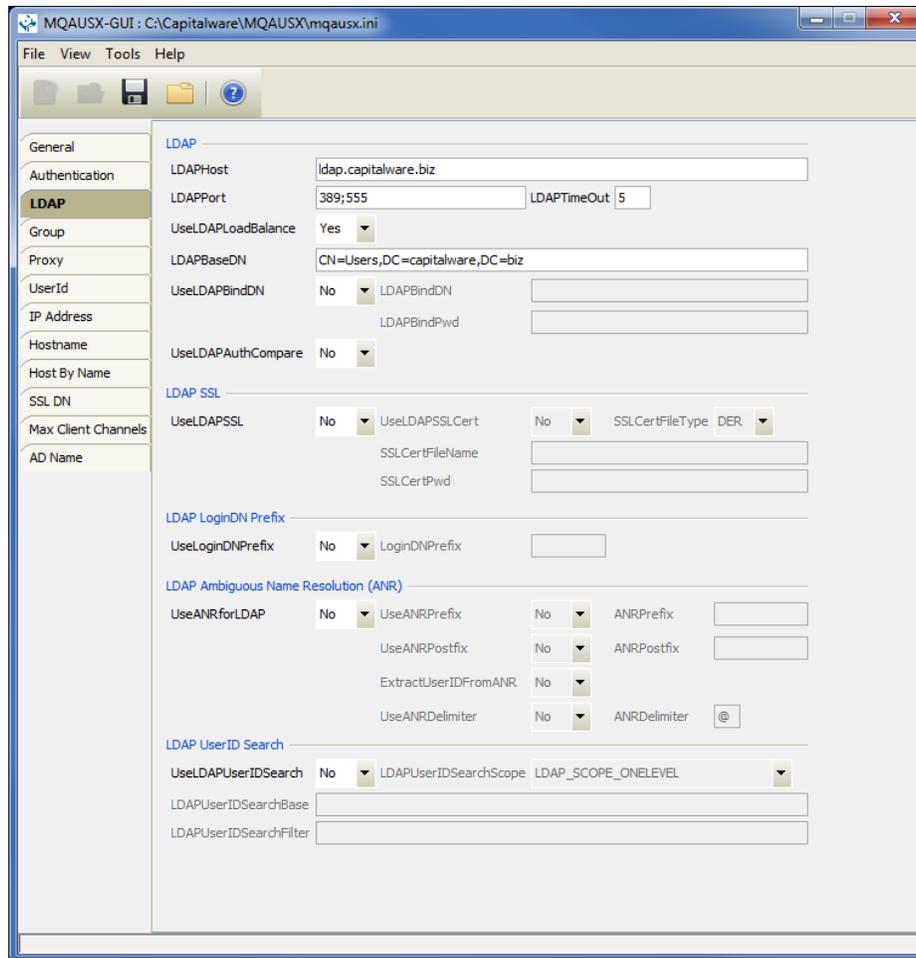
This section describes the keywords related to ServerName and their values.

- **UseServerName** allows MQ Admin to designate a server name to this entity. UseServerName supports 2 values [Yes / No]. The default value is No.
- **ServerName** specifies a default server name for this entity. This value will be transmitted to the end-user. For a Windows Server, you may specify a domain name. The default is the server's hostname.
- **AllowUserAlterServerName** allows MQAUSX server-side component to accept user specified ServerName. AllowUserAlterServerName supports 2 values [Yes / No]. The default value is No.

4.3 LDAP Tab

This section will describe various parameters on the LDAP tab of a MQAUSX IniFile.

The following is the LDAP Tab with sample values:



The screenshot shows the MQAUSX-GUI configuration window for the LDAP tab. The window title is "MQAUSX-GUI : C:\Capitalware\MQAUSX\mqausx.ini". The left sidebar contains a tree view with the following items: General, Authentication, LDAP (selected), Group, Proxy, UserId, IP Address, Hostname, Host By Name, SSL DN, Max Client Channels, and AD Name. The main area is divided into several sections:

- LDAP**
 - LDAPHost: ldap.capitalware.biz
 - LDAPPort: 389;555
 - LDAPTimeOut: 5
 - UseLDAPLoadBalance: Yes
 - LDAPBaseDN: CN=Users,DC=capitalware,DC=biz
 - UseLDAPBindDN: No
 - LDAPBindDN: (empty)
 - LDAPBindPwd: (empty)
 - UseLDAPAuthCompare: No
- LDAP SSL**
 - UseLDAPSSL: No
 - UseLDAPSSLCert: No
 - SSLCertFileType: DER
 - SSLCertFileName: (empty)
 - SSLCertPwd: (empty)
- LDAP LoginDN Prefix**
 - UseLoginDNPrefix: No
 - LoginDNPrefix: (empty)
- LDAP Ambiguous Name Resolution (ANR)**
 - UseANRforLDAP: No
 - UseANRPrefix: No
 - ANRPrefix: (empty)
 - UseANRPostfix: No
 - ANRPostfix: (empty)
 - ExtractUserIDFromANR: No
 - UseANRDelimiter: No
 - ANRDelimiter: @
- LDAP UserID Search**
 - UseLDAPUserIDSearch: No
 - LDAPUserIDSearchScope: LDAP_SCOPE_ONELEVEL
 - LDAPUserIDSearchBase: (empty)
 - LDAPUserIDSearchFilter: (empty)

The following are the IniFile parameters on the LDAP Tab:

4.3.1 LDAP

This section describes the necessary steps to enable 'LDAP Based Authentication'. By default, the server-side security exit will do UserId and Password against the native OS (Operating System). The company or MQ Administrator can choose to have authentication against a centralized LDAP server.

- **LDAPHost** specifies the hostname or IP address of the LDAP server.
- **LDAPPort** specifies the port number of the LDAP server (default value is 389).
- **LDAPTimeOut** specifies, in seconds, how long to wait before timing out
- **UseLDAPLoadBalance** specifies that load balancing of LDAP servers is to be used. The LDAP server selection is based on a random number.
- **LDAPBaseDN** specifies the base DN / LDAP schema to be used when accessing the LDAP server. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.
- **UseLDAPBindDN** allows for a particular LDAP UserId and Password to be specified to connect to the remote LDAP server which the authentication will take place with.
- **LDAPBindDN** specifies the bind DN UserID.
- **LDAPBindPwd** specifies the bind DN Password
- **UseLDAPAuthCompare** specifies whether to use ldap_compare_s vs ldap_simple_bind_s LDAP API call

LDAP LoginDN Prefix

- **UseLoginDNPrefix** allows the **LoginDN** to be built with a different prefix rather than CN. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.
- **LoginDNPrefix** a value (i.e. UID) to be used as a prefix to the LoginDN. This keyword's value is not used when 'UseANRforLDAP' is set to Yes.

LDAP SSL

- **UseLDAPSSL** specifies that the connection to the LDAP server will be done via SSL.
- **UseLDAPSSLCert** specifies that a SSL certificate will verify the SSL connection.
- **SSLCertFileName** specifies the path and file name of the SSL certificate.
- **SSLCertPwd** specifies the Password for the SSL certificate (Netscape/Mozilla style)
- **SSLCertFileType** specifies the type of SSL certificate: DER or B64

LDAP Ambiguous Name Resolution (ANR)

- **UseANRforLDAP** allows the **LoginDN** to be replaced with an ANR value.
- **UseANRPrefix** tells MQAUSX to prefix a given string to the user's inputted UserId.
- **ANRPrefix** specifies the string to be prefixed to the user's inputted UserId.
- **UseANRPostfix** tells MQAUSX to postfix (append) a given string to the user's inputted UserId.
- **ANRPostfix** specifies the string to be postfixed (appended) to the user's inputted UserId.
- **ExtractUserIDFromANR** tells MQAUSX to strip off the UserId at the '@' symbol and set the connection with this UserId.
- **UseANRDelimiter** tells MQAUSX to strip off the UserId at a specific symbol rather than the '@' sign.
- **ANRDelimiter** tells MQAUSX what symbol to be used when stripping the UserId from the ANR value.

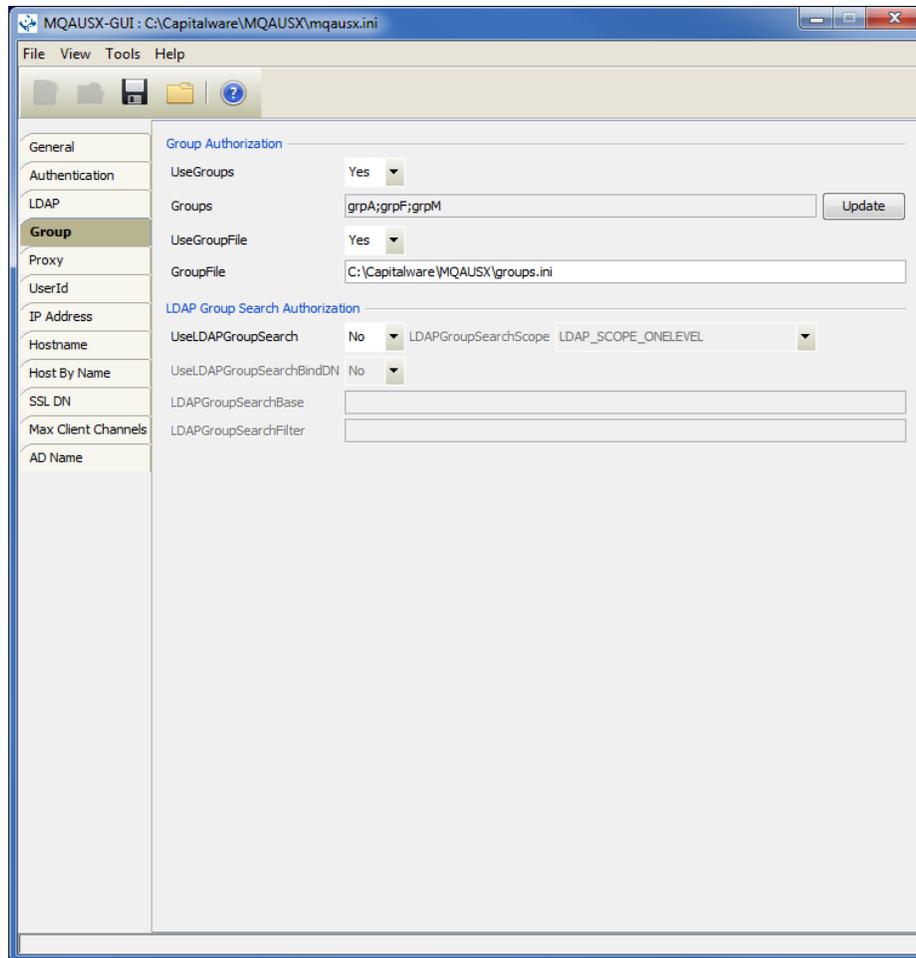
LDAP UserID Search

- **UseLDAPUserIDSearch** specifies that LDAP UserID Search be used
- **LDAPUserIDSearchBase** specifies a search base for the LDAP UserID Search
- **LDAPUserIDSearchFilter** specifies a search filter for the LDAP UserID Search
- **LDAPUserIDSearchScope** specifies a search scope for the LDAP UserID Search

4.4 Group Tab

This section will describe various parameters on the Group tab of a MQAUSX IniFile.

The following is the Group Tab with default values:



The following are the IniFile parameters on the Group Tab:

4.4.1 Local OS or Group File Search

This section describes the necessary entries to enable the feature that allows or restricts the incoming UserID against an OS group or a group file. This feature uses the following four keywords:

- **UseGroup** to allow or restrict an incoming UserID by a local OS group or a group file.
- **Groups** specifies the list of authorized groups.
- **UseGroupFile** specifies if a group file should be used instead of local OS groups.
- **GroupFile** specifies the location of the group file.

4.4.2 LDAP Group Search

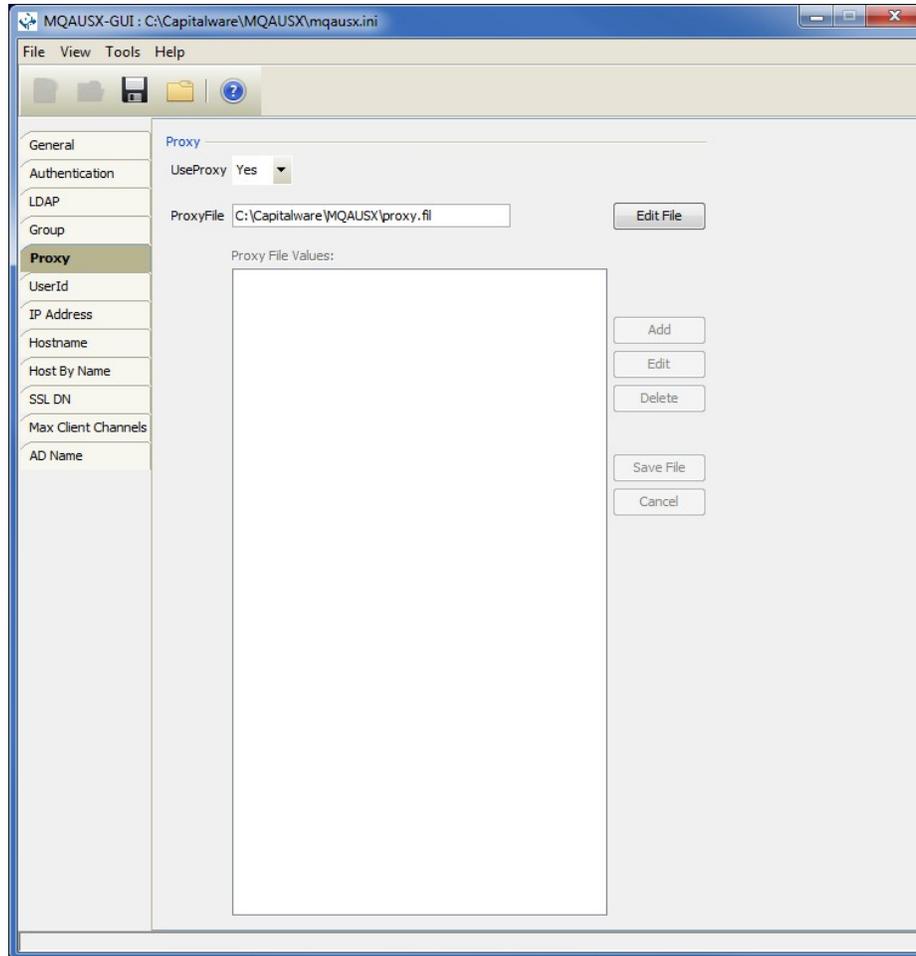
MQAUSX supports the use of LDAP Group Search to verify that a UserID exists in a group.

- **UseLDAPGroupSearch** specifies that LDAP Search be used for group verification
- **UseLDAPGroupSearchBase** specifies a search base for the LDAP Search
- **UseLDAPGroupSearchFilter** specifies a search filter for the LDAP Search
- **UseLDAPGroupSearchScope** specifies a search scope for the LDAP Search.

4.5 Proxy Tab

This section will describe various parameters on the Proxy tab of a MQAUSX IniFile.

The following is the Proxy Tab with sample values:



4.5.1 Proxy File

This section describes the necessary steps to enable the use of 'Proxy IDs'. Proxy ID allows an authorized User to use a different UserID for MQ interactions.

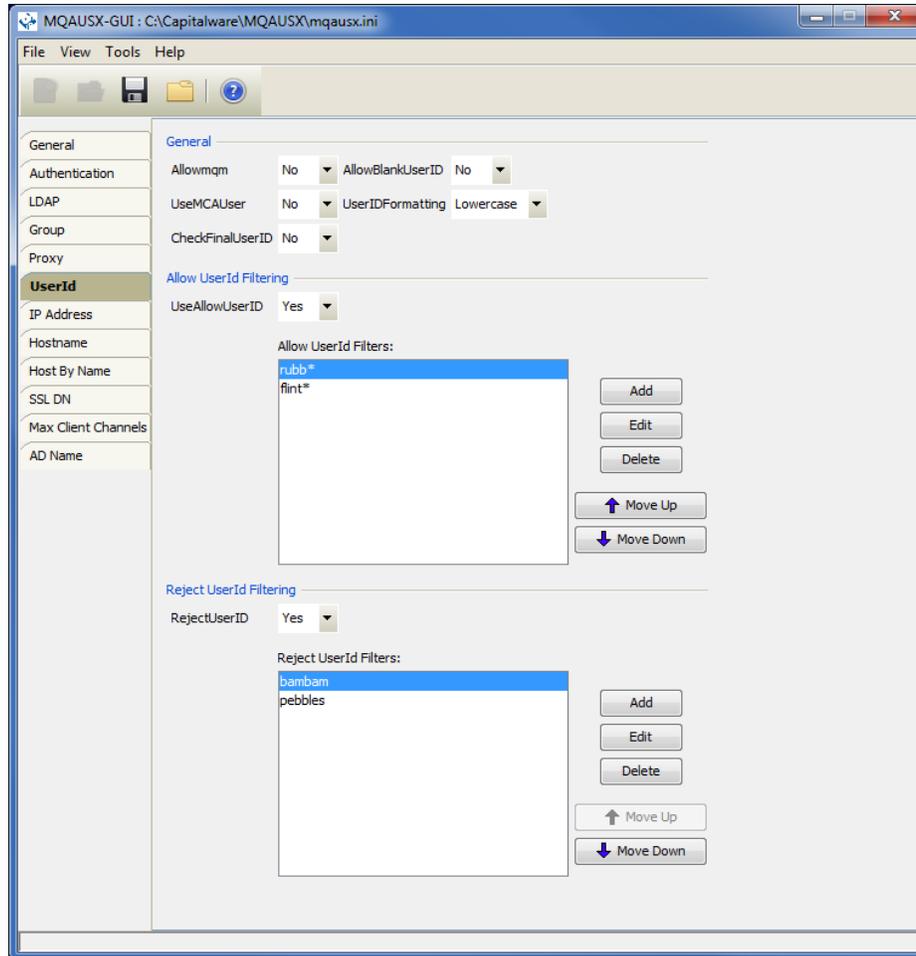
The following are the IniFile parameters on the Proxy Tab:

- **UseProxy** allows an authorized User to use a different UserID for MQ interactions.
- **ProxyFile** specifies the location of the file to do alternate UserID look-up.

4.6 UserId Tab

This section will describe various parameters on the UserId tab of a MQAUSX IniFile.

The following is the UserId Tab with sample values:



The following are the IniFile parameters on the UserId Tab:

4.6.1 General

This section describes the necessary steps to enable the use of the general options for the UserID tab.

- **Allowmqm** enables users to login with the mqm or MUSR_MQADMIN or QMQM system account. This is controlled by the IniFile's property keyword 'Allowmqm'. Setting 'Allowmqm' to Yes will activate this feature; otherwise, it will be blocked.
- **AllowBlankUserID** enables connection to have a blank UserID. *This parameter is only valid when 'NoAuth' is set to 'Yes'*. This is controlled by the IniFile's property keyword 'AllowBlankUserID'. Setting 'AllowBlankUserID' to 'Yes' will allow connections to have a blank UserID.
- **UseMCAUser** allows the connection to use the UserID value specified in the channel's MCAUSER field.
- **UserIDFormatting** specifies how to handle/format the incoming UserID. Use it 'As Is' or 'Uppercase' it or 'Lowercase' it. The default is 'As Is'.
- **CheckFinalUserID** specifies whether or not the final UserID will be checked against the UseAllowUserID, AllowUserID, UseRejectUserID, RejectUserID and Allowmqm keywords. CheckFinalUserID supports 2 values [Y / N]. The default is 'N'.

4.6.2 Allow UserID

This section describes the necessary steps to enable the use of filtering of the incoming UserID.

- **UseAllowUserID** enables the feature to allow or to restrict the incoming UserID by using a regular expression pattern. This parameter is only valid when 'NoAuth' is set to 'Y'. The server-side security exit will look up the regular expression pattern from the 'AllowUserID' property keyword.
- **AllowUserID Filters** is a list of UserIds (with wildcards) that are allowed to connect to queue manager or particular channel.

4.6.3 Reject UserID

This section describes the necessary steps to explicitly reject an incoming UserID.

- **UseRejectUserID** enables the feature to reject an the incoming UserID by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'RejectUserID' property keyword.
- **RejectUserID Filters** is a list of UserIds (with wildcards) that are explicitly rejected.

4.6.4 Managing UserID Filtering

This section describes the necessary steps to manage UserID filtering entries.

Click the **Add** button to add an entry to the list.



Input the UserID including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.



Update the UserID including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

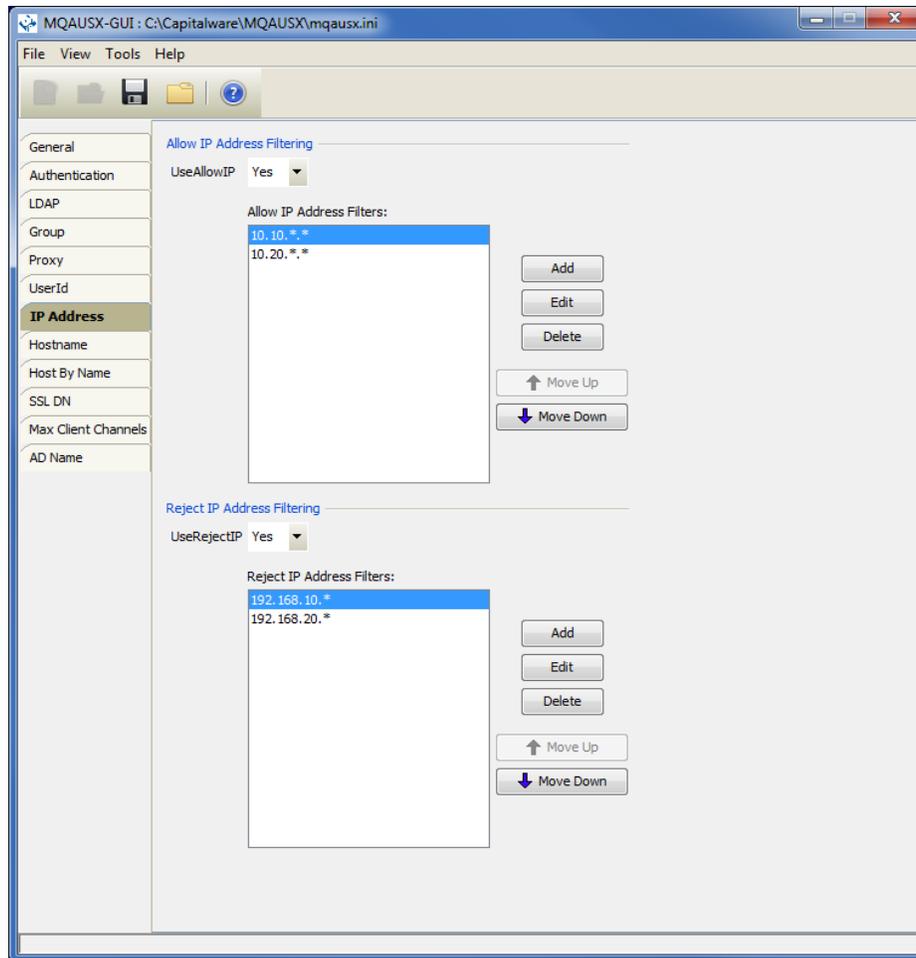


Click the **Yes** button to permanently remove the entry from the list.

4.7 IP Address Tab

This section will describe various parameters on the IP Address tab of a MQAUSX IniFile.

The following is the IP Address Tab with sample values:



The following are the IniFile parameters on the IP Address Tab:

4.7.1 Allow IP

This section describes the necessary steps to enable the use of filtering of the incoming IP address.

➤ **UseAllowIP** to allow or restrict an incoming IP address by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowIP'. Setting 'UseAllowIP' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowIP' property keyword.

➤ **IP Address Filters** is a list of IP Addresses (with wildcards) that are allowed to connect to queue manager or particular channel.

4.7.2 Reject IP

This section describes the necessary steps to explicitly reject an incoming IP address.

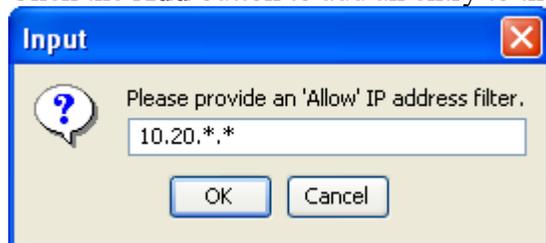
➤ **UseRejectIP** to explicitly reject an incoming IP address by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseRejectIP'. Setting 'UseRejectIP' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'RejectIP' property keyword.

➤ **IP Reject Filters** is a list of IP Addresses (with wildcards) that are explicitly rejected.

4.7.3 Managing IP Address Filtering

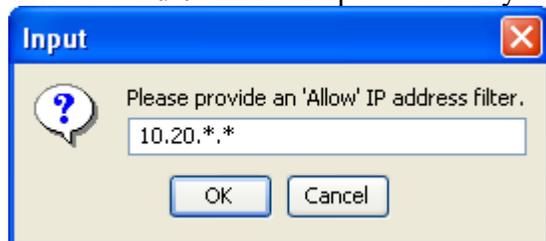
This section describes the necessary steps to manage IP address filtering entries.

Click the **Add** button to add an entry to the list.



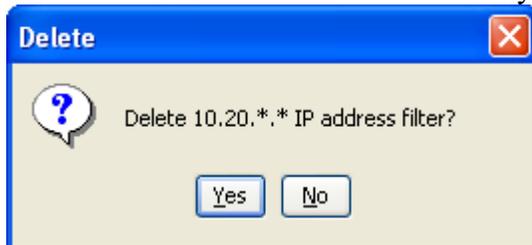
Input the IP Filter including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.



Update the IP Filter including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

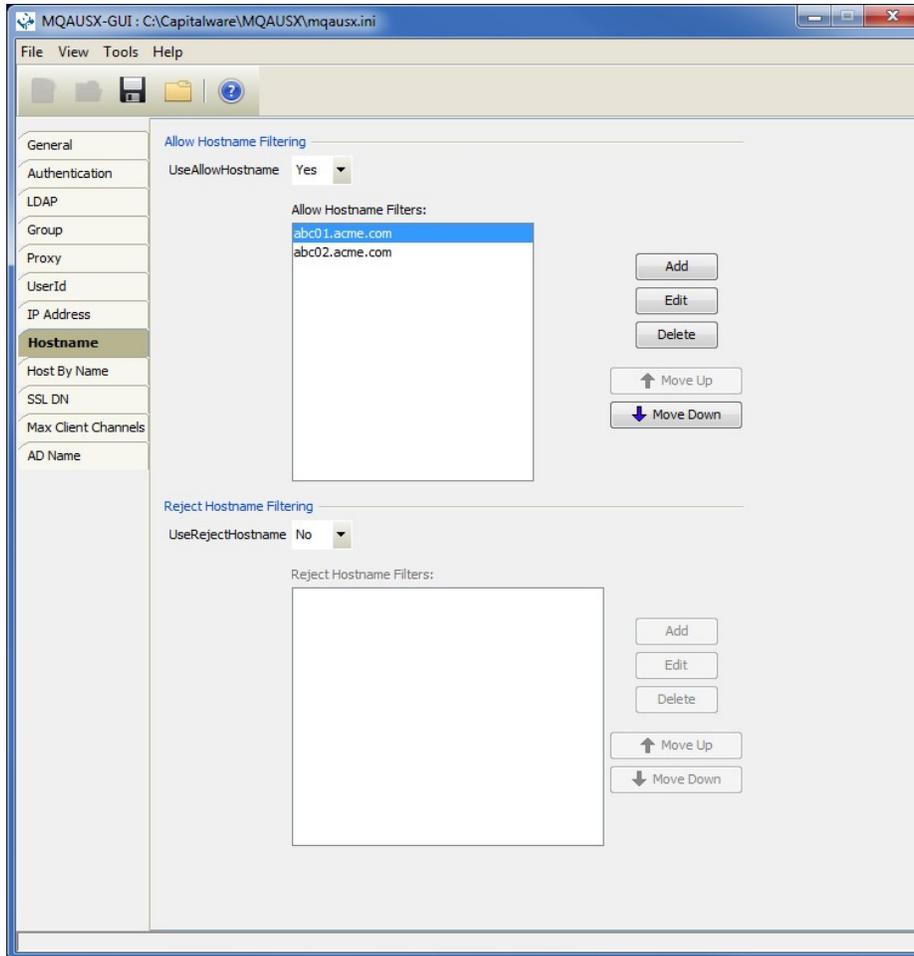


Click the **Yes** button to permanently remove the entry from the list.

4.8 Hostname Tab

This section will describe various parameters on the Hostname tab of a MQAUSX IniFile.

The following is the Hostname Tab with default values:



The following are the IniFile parameters on the Hostname Tab:

4.8.1 Allow Hostname

This section describes the necessary steps to enable the use of filtering of the incoming Hostname.

- **UseAllowHostname** to allow or restrict an incoming Hostname by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowHostname'. Setting 'UseAllowHostname' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowHostname' property keyword.
- **Hostname Filters** is a list of Hostnames (with wildcards) that are allowed to connect to queue manager or particular channel.

4.8.2 Reject Hostname

This section describes the necessary steps to explicitly reject an incoming Hostname.

- **UseRejectHostname** to explicitly reject an incoming Hostname by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseRejectHostname'. Setting 'UseRejectHostname' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'RejectHostname' property keyword.
- **Reject Hostname Filters** is a list of Hostnames (with wildcards) that are explicitly rejected.

4.8.3 Managing Hostname Filtering

This section describes the necessary steps to manage Hostname filtering entries.

Click the **Add** button to add an entry to the list.



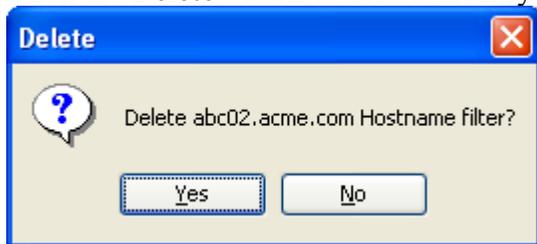
Input the Hostname Filter including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.



Update the Hostname Filter including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

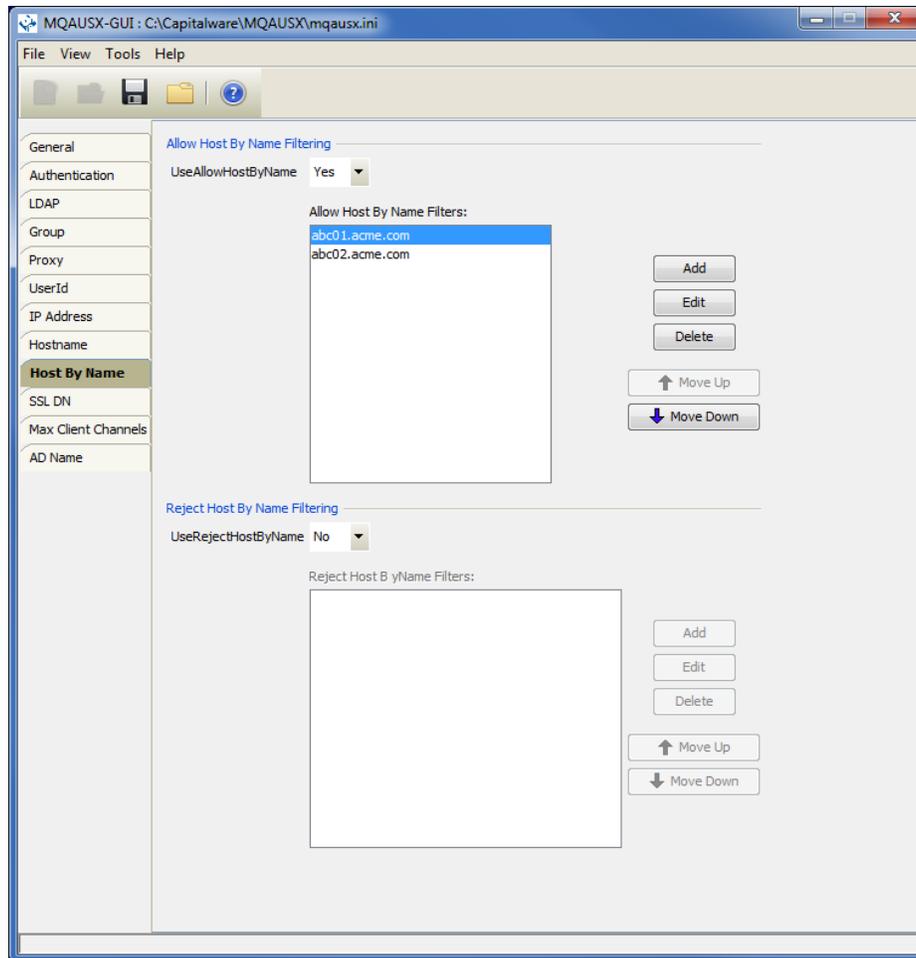


Click the **Yes** button to permanently remove the entry from the list.

4.9 Host By Name Tab

This section will describe various parameters on the Host By Name tab of a MQAUSX IniFile.

The following is the Host By Name Tab with default values:



The following are the IniFile parameters on the HostByName Tab:

4.9.1 Allow HostByName

This section describes the necessary entries to enable the feature that allows or restricts the incoming IP against IP of Hostnames that MQAUSX will perform a `gethostbyaddr()` call against to compare the returned IP address against the incoming IP address.

- **UseAllowHostByName** controls the use of AllowHostByName. Set to Y to activate feature.
- **HostByName** specifies the Hostnames that MQAUSX will perform a `gethostbyaddr()` call against to compare the returned IP address against the incoming IP address to allow the incoming connection.

4.9.2 Reject HostByName

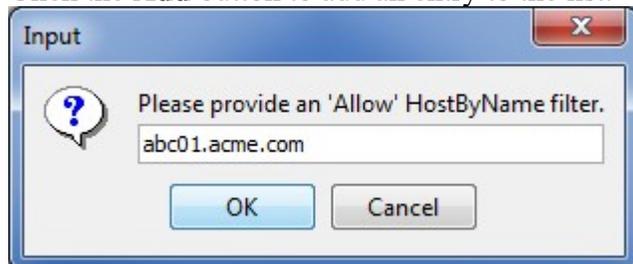
This section describes the necessary entries to enable the feature that rejects the incoming IP against IP of Hostnames that MQAUSX will perform a `gethostbyaddr()` call against to compare the returned IP address against the incoming IP address.

- **UseRejectHostByName** controls the use of RejectHostByName. Set to Y to activate feature.
- **Reject HostByName** specifies the Hostnames that MQAUSX will perform a `gethostbyaddr()` call against to compare the returned IP address against the incoming IP address. rejected.

4.9.3 Managing HostByName Filtering

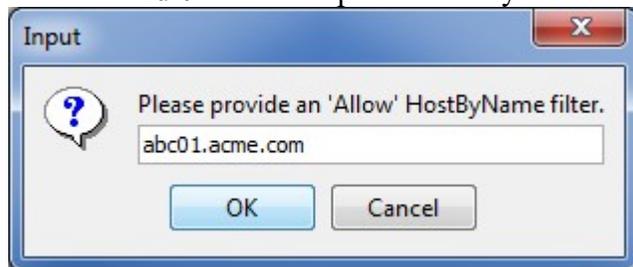
This section describes the necessary steps to manage HostByName filtering entries.

Click the **Add** button to add an entry to the list.



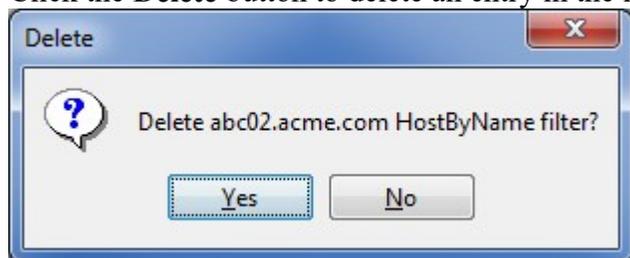
Input the HostByName Filter including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.



Update the HostByName Filter including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

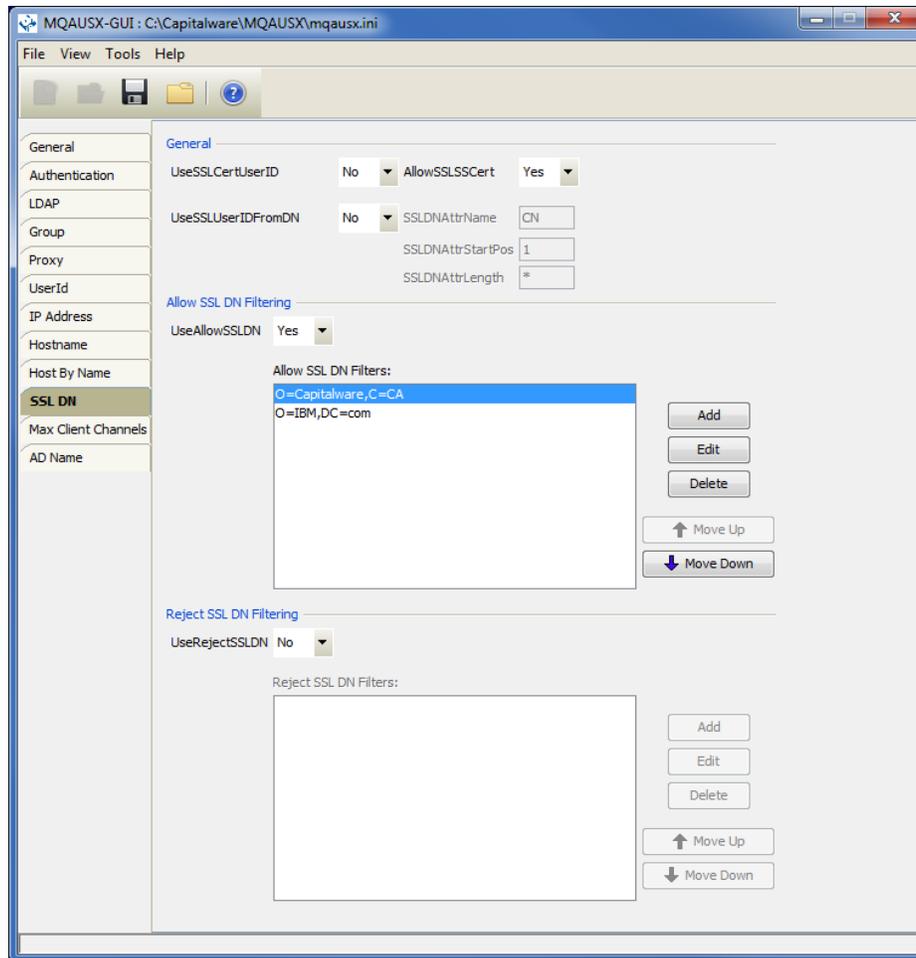


Click the **Yes** button to permanently remove the entry from the list.

4.10 SSL DN Tab

This section will describe various parameters on the SSL DN tab of a MQAUSX IniFile.

The following is the SSL DN Tab with sample values:



The following are the IniFile parameters on the SSL DN Tab:

4.10.1 General

This section describes the necessary steps to enable the use of the general options for the SSL DN tab.

- **UseSSLCertUserID** allows the connection to use the UserID value specified in the channel's SSLCertUserID field.
- **AllowSSLSSCert** allows or rejects a connection with a Self-Signed Certificate.
- **UseSSLSSLDNFromDN** specifies that the UserID is to be retrieved from a SSL DN entry.
- **SSLSSLDNAttrName** specifies the SSL DN attribute field name
- **SSLDNAttrStartPos** specifies the start position of the retrieval
- **SSLDNAttrLength** specifies the length of the field to be extracted (* means all)

4.10.2 Allow SSL DN

This section describes the necessary steps to enable the use of filtering of the incoming SSL DN.

- **UseAllowSSL DN** enables the feature to allow or to restrict the incoming SSL DN by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'AllowSSL DN' property keyword.
- **AllowSSL DN Filters** is a list of SSL DNs (with wildcards) that are allowed to connect to queue manager or particular channel.

4.10.3 Reject SSL DN

This section describes the necessary steps to explicitly reject an incoming SSL DN.

- **UseRejectSSL DN** enables the feature to reject an the incoming SSL DN by using a regular expression pattern. The server-side security exit will look up the regular expression pattern from the 'RejectSSL DN' property keyword.
- **RejectSSL DN Filters** is a list of SSL DNs (with wildcards) that are explicitly rejected.

4.10.4 Managing SSL DN Filtering

This section describes the necessary steps to manage SSL DN filtering entries.

Click the **Add** button to add an entry to the list.



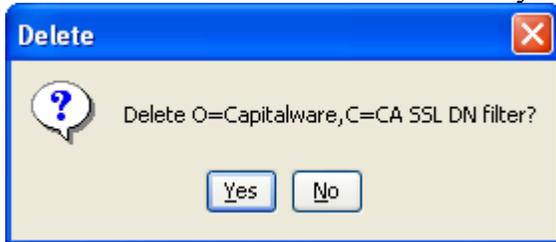
Input the SSL DN including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.



Update the SSL DN including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.

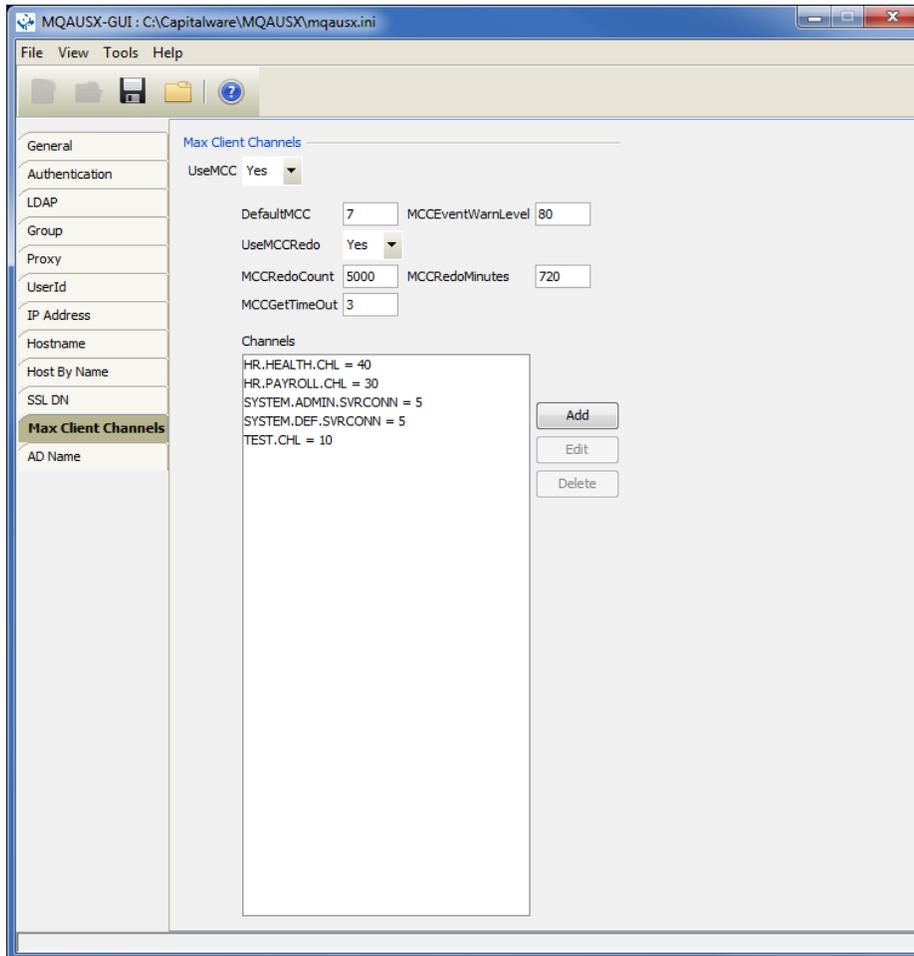


Click the **Yes** button to permanently remove the entry from the list.

4.11 Max Client Channel Tab

This section will describe various parameters on the Max Client Channel (MCC) tab of a MQAUSX IniFile.

The following is the Max Client Channel Tab with sample values:



The following are the IniFile parameters on the Max Client Channel Tab:

4.11.1 Set Maximum Number of Incoming Connections per Channel

This section describes the necessary entries to set a maximum number of allowable connections per a given channel. This is controlled by the IniFile's property keyword 'UseMCC'. Setting 'UseMCC' to 'Y' (Yes) will cause the server-side security exit to look up channel's name as a property keyword in the IniFile.

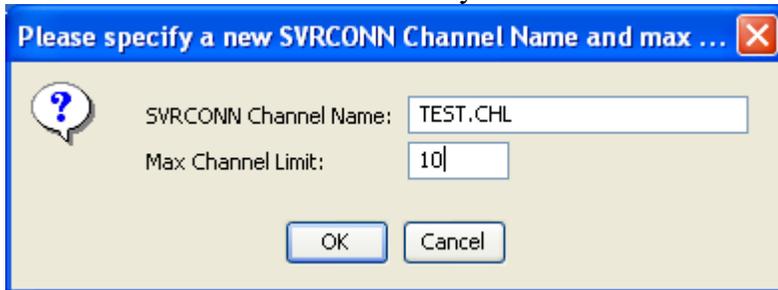
For example, if 'UseMCC' is set to 'Y' and the incoming connection is on 'SYSTEM.ADMIN.SVRCONN', the server-side security exit will look up in the IniFile the keyword of 'SYSTEM.ADMIN.SVRCONN'. If the 'SYSTEM.ADMIN.SVRCONN' keyword is not found, then the server-side security exit will look up 'DefaultMCC' keyword in the IniFile.

- **DefaultMCC** is the default maximum number of connections allowed for the channel.
- **MCCEventWarnLevel** keyword provides a percent level of connected channels when a warning messages should be issued to the event queue. The default value for 'MCCEventWarnLevel' is 80 percent.
- **UseMCCRedo** keyword specifies whether or not the server-side security exit should issue the PCF command. The default value for 'UseMCCRedo' is 'N'.
- **MCCRedoMinutes** keyword states that the server-side security exit should issue PCF command if more than 'x' minutes have passed since the last PCF command was issued. The default value for 'MCCRedoMinutes' is 720 minutes.
- **MCCRedoCount** keyword states that the server-side security exit should issue PCF command if more than 'x' connection attempts passed since the last PCF command was issued. The default value for 'MCCRedoCount' is 5000.
- **MCCGetTimeOut** keyword states that the server-side security exit should wait, after issues a PCF command, up to 'x' seconds for the response message from the command server. The default value for 'MCCGetTimeOut' is 3 seconds.

4.11.2 Managing MCC entries

This section describes the necessary steps to manage the max. client channel entries.

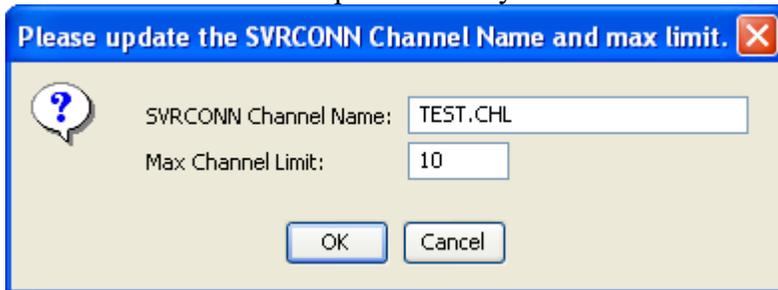
Click the **Add** button to add an entry to the list.



A dialog box with a blue title bar containing the text "Please specify a new SVRCONN Channel Name and max ...". The dialog has a light beige background and a question mark icon in a speech bubble on the left. It contains two input fields: "SVRCONN Channel Name:" with the text "TEST.CHL" and "Max Channel Limit:" with the text "10". At the bottom, there are two buttons: "OK" and "Cancel".

Input the channel name and the maximum number of connection to be allowed at any given time for this channel and then click the **Ok** button.

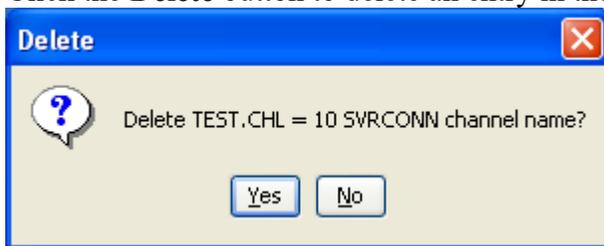
Click the **Edit** button to update an entry in the list.



A dialog box with a blue title bar containing the text "Please update the SVRCONN Channel Name and max limit.". The dialog has a light beige background and a question mark icon in a speech bubble on the left. It contains two input fields: "SVRCONN Channel Name:" with the text "TEST.CHL" and "Max Channel Limit:" with the text "10". At the bottom, there are two buttons: "OK" and "Cancel".

Update the channel name and / or the maximum number of connection to be allowed at any given time for this channel and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



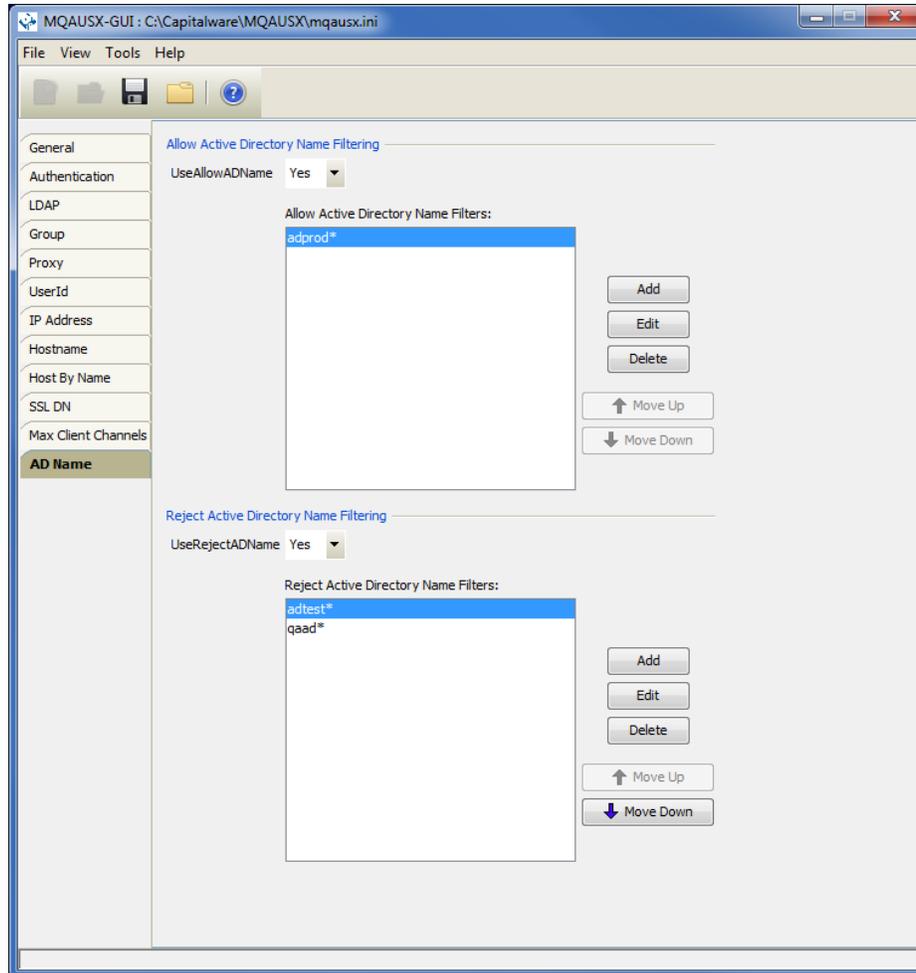
A dialog box with a blue title bar containing the text "Delete". The dialog has a light beige background and a question mark icon in a speech bubble on the left. It contains a message: "Delete TEST.CHL = 10 SVRCONN channel name?". At the bottom, there are two buttons: "Yes" and "No".

Click the **Yes** button to permanently remove the entry from the list.

4.12 AD Name Tab

This section will describe various parameters on the AD Name tab of a MQAUSX IniFile.

The following is the AD Name Tab with sample values:



The following are the IniFile parameters on the AD Name Tab:

4.12.1 Allow AD Name

This section describes the necessary steps to enable the use of filtering of the incoming AD Name.

- **UseAllowADName** to allow or restrict an incoming AD Name by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowADName'. Setting 'UseAllowADName' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowADName' property keyword.
- **AD Name Filters** is a list of AD Name s (with wildcards) that are allowed to connect to queue manager or particular channel.

4.12.2 Reject AD Name

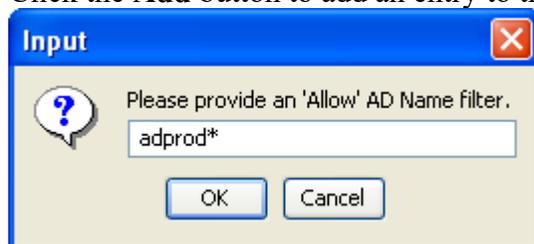
This section describes the necessary steps to explicitly reject an incoming AD Name.

- **UseRejectADName** to explicitly reject an incoming AD Name by using a regular expression pattern. This is controlled by the IniFile's property keyword 'UseAllowADName'. Setting 'UseAllowADName' to 'Yes' will cause the server-side security exit to look up the regular expression pattern from the 'AllowADName' property keyword.
- **AD Name Reject Filters** is a list of AD Name (with wildcards) that are allowed to connect to queue manager or particular channel.

4.12.3 Managing AD Name Filtering

This section describes the necessary steps to manage AD Name filtering entries.

Click the **Add** button to add an entry to the list.



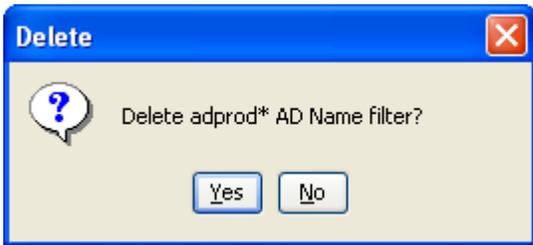
Input the AD Name including wildcards and then click the **Ok** button.

Click the **Edit** button to update an entry in the list.

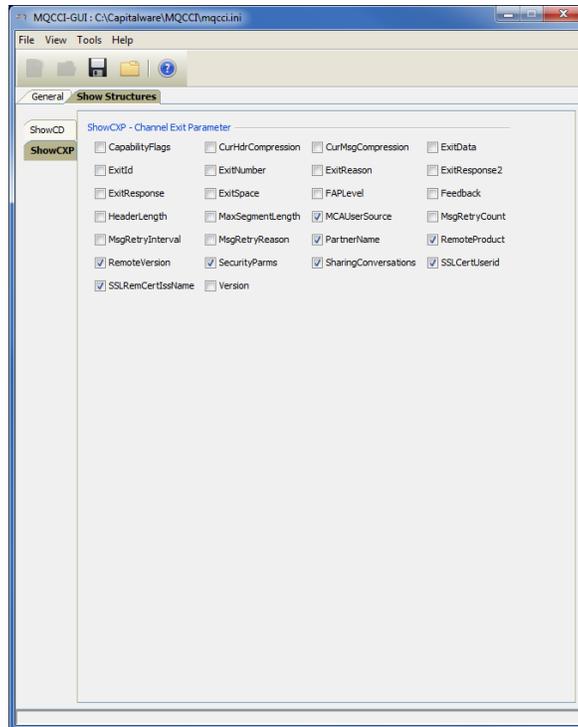


Update the AD Name including wildcards and then click the **Ok** button.

Click the **Delete** button to delete an entry in the list.



Click the **Yes** button to permanently remove the entry from the list.



5 Other Tools

This chapter will describes how the other tools included with MQAUSX-GUI.

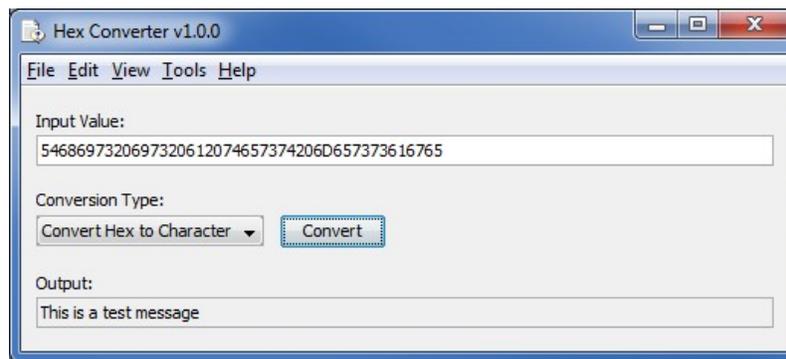
5.1 Hex Converter

This section will describe how to invoke and use the Hex Converter tool. Hex Converter tool can convert a hexadecimal number to its corresponding string representation and vice versa. i.e. 0x'3132333041424344' to '1230ABCD'.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Hex Converter**.

This is the main panel of the Hex Converter.



- The user first selects the Conversion type: "Hex to Character" or "Character to Hex"
- Input the value hex or character value into the "Input Value" field
- Click the Convert button to convert the data

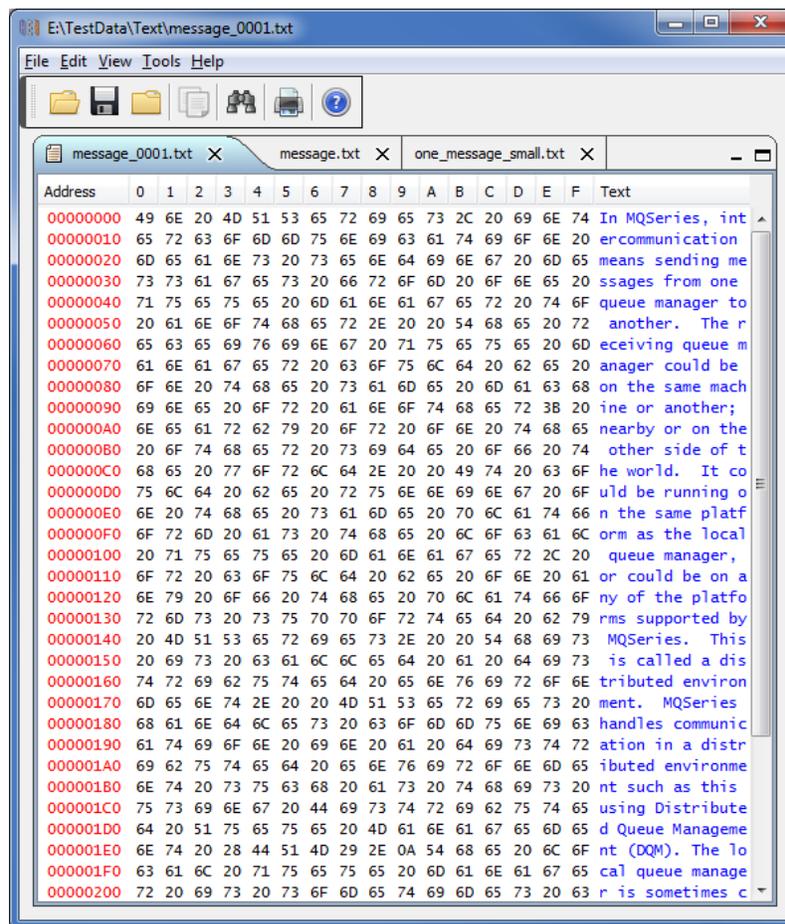
5.2 Hex Editor

This section will describe how to invoke and use the Hex Editor tool. The Hex Editor is a simple multipurpose hex editor. The Hex Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Hex Editor**.

This is the main panel of the Hex Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

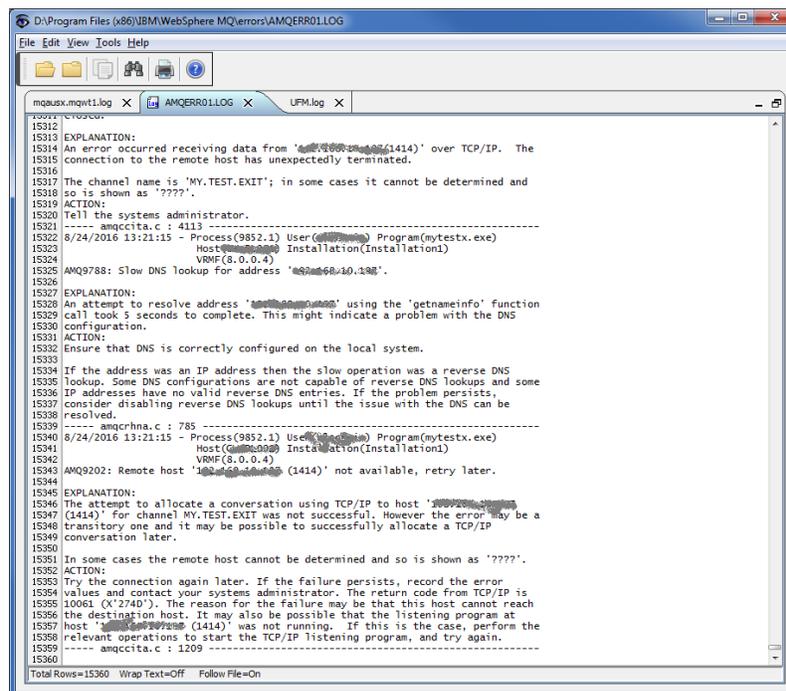
5.3 Tail File

This section will describe how to invoke and use the Tail File tool. The Tail File is a simple multipurpose file monitoring viewer. The Tail File supports monitoring of multiple files at the same time.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Tail File**.

This is the main panel of the Tail File and it has 3 open files.



```
D:\Program Files\IBM\WebSphere MQ\errors\AMQERR01.LOG
File Edit View Tools Help
mqausx.mqwt1.log X AMQERR01.LOG X UPM.log X
15312
15313
15314 EXPLANATION:
15315 An error occurred receiving data from '10.10.10.1414' over TCP/IP. The
15316 connection to the remote host has unexpectedly terminated.
15317
15318 The channel name is 'MY.TEST.EXIT'; in some cases it cannot be determined and
15319 so is shown as '????'.
15320 ACTION:
15321 Tell the systems administrator.
15322 ----- amqccta.c : 4113 -----
15323 8/24/2016 13:21:15 - Process(9852.1) User(IBMUSER) Program(mytestx.exe)
15324 Host(IBMUSER) Installation(Installation1)
15325 VMF(8.0.0.4)
15326 AMQ9788: Slow DNS lookup for address '10.10.10.1414'.
15327
15328 EXPLANATION:
15329 An attempt to resolve address '10.10.10.1414' using the 'getnameinfo' function
15330 call took 5 seconds to complete. This might indicate a problem with the DNS
15331 configuration.
15332 ACTION:
15333 Ensure that DNS is correctly configured on the local system.
15334
15335 IF the address was an IP address then the slow operation was a reverse DNS
15336 lookup. Some DNS configurations are not capable of reverse DNS lookups and some
15337 IP addresses have no valid reverse DNS entries. If the problem persists,
15338 consider disabling reverse DNS lookups until the issue with the DNS can be
15339 resolved.
15340 ----- amqcrhna.c : 785 -----
15341 8/24/2016 13:21:15 - Process(9852.1) User(IBMUSER) Program(mytestx.exe)
15342 Host(IBMUSER) Installation(Installation1)
15343 VMF(8.0.0.4)
15344 AMQ9202: Remote host '10.10.10.1414' (1414) not available, retry later.
15345
15346 EXPLANATION:
15347 The attempt to allocate a conversation using TCP/IP to host '10.10.10.1414'
15348 (1414) for channel MY.TEST.EXIT was not successful. However the error may be a
15349 transitory one and it may be possible to successfully allocate a TCP/IP
15350 conversation later.
15351
15352 In some cases the remote host cannot be determined and so is shown as '????'.
15353 ACTION:
15354 Try the connection again later. If the failure persists, record the error
15355 values and contact your systems administrator. The return code from TCP/IP is
15356 10061 (X'274D'). The reason for the failure may be that this host cannot reach
15357 the destination host. It may also be possible that the listening program at
15358 host '10.10.10.1414' was not running. If this is the case, perform the
15359 relevant operations to start the TCP/IP listening program, and try again.
15360 ----- amqccta.c : 1209 -----
15361
Total Rows=15360 Wrap Text=Off Follow File=On
```

Supported features:

- Opening of multiple files
- Wrap Text and Recent File List
- Copy, Find, Find Next and Print

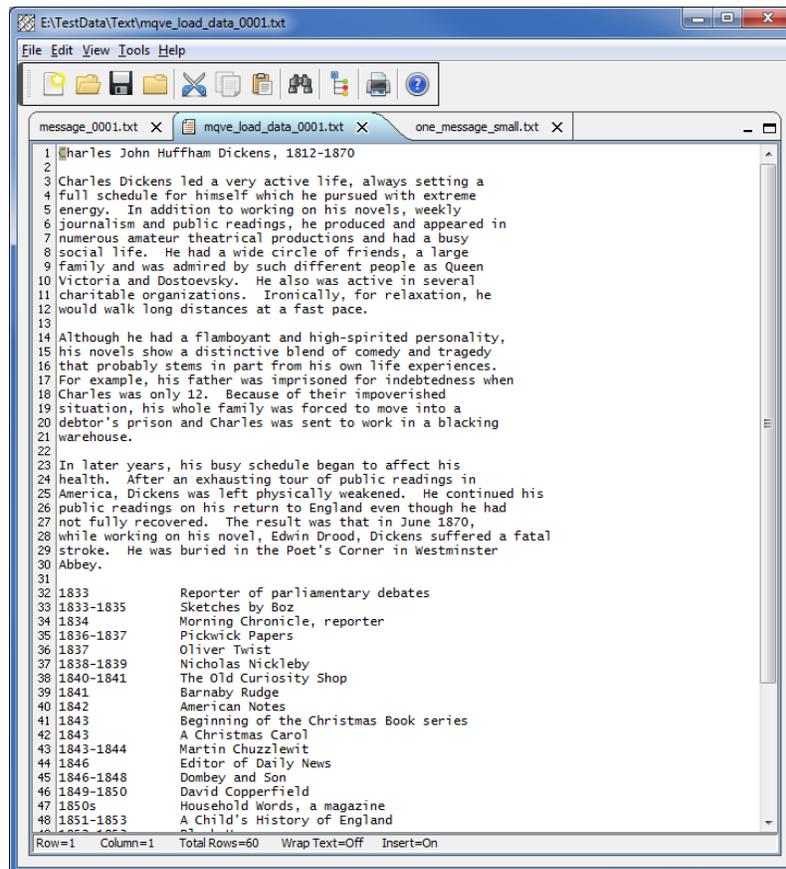
5.4 Text Editor

This section will describe how to invoke and use the Text Editor tool. The Text Editor is a simple multipurpose plain-text editor. The Text Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Text Editor**.

This is the main panel of the Text Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Builtin XML Viewer, Wrap Text
- Recent File List
- Cut, Copy, Paste, Find and Find Next
- Save, Save As and Print

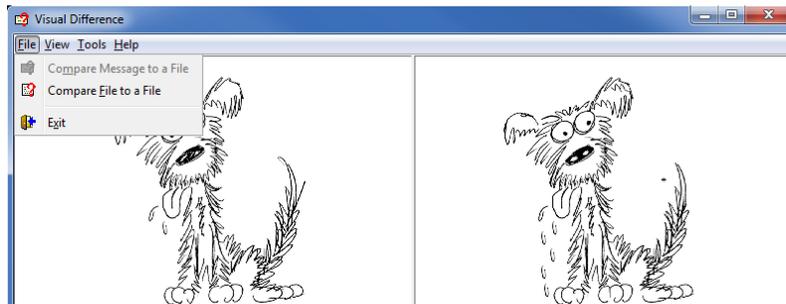
5.5 Visual Difference

This section will describe how to invoke and use the Visual Difference tool. The Visual Difference is a simple file to file comparison tool.

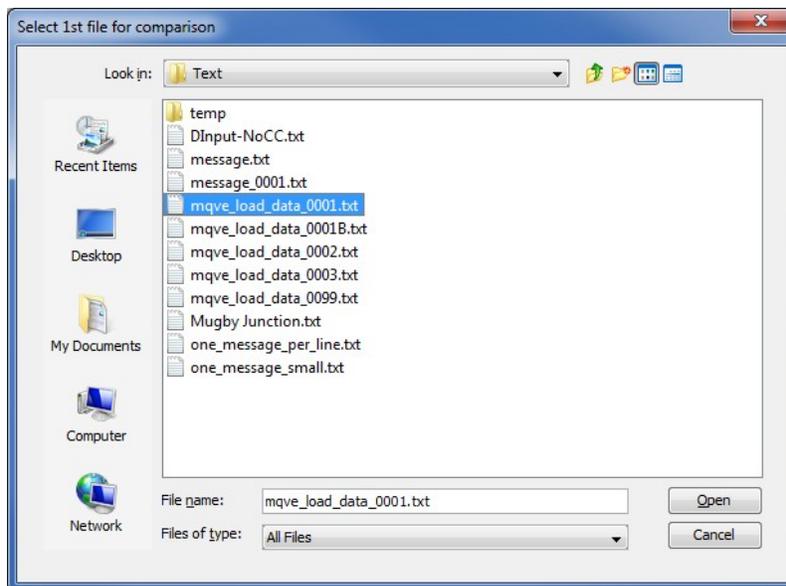
For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **Visual Difference**.

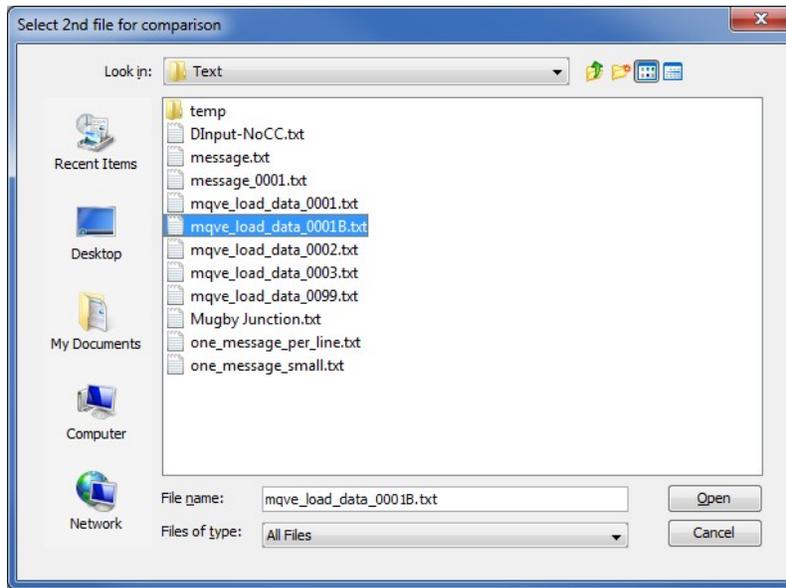
This is the main panel of the Visual Difference. To initiate the file comparison process, click File and then click Compare File to File



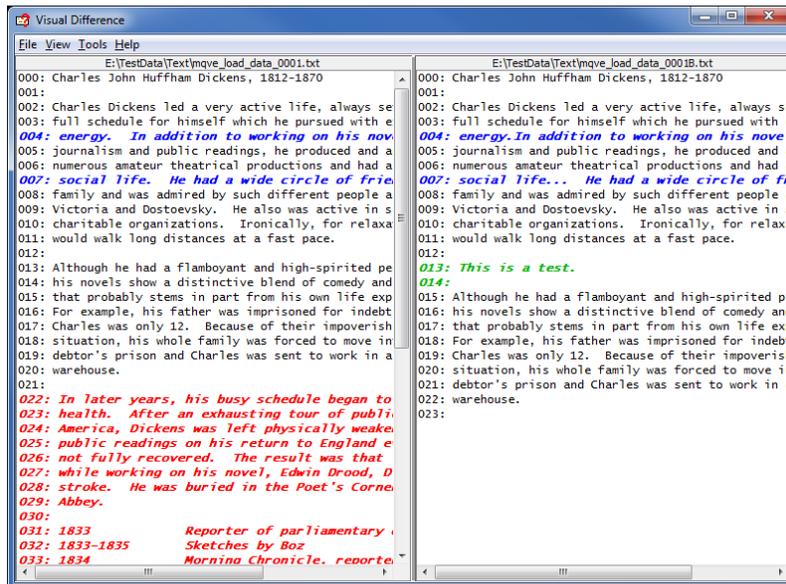
First the user needs to select the first file for the comparison.



Next, the user needs to select the second file for the comparison.



The following shows the difference between 2 files. Differences are highlighted: Green for inserts, Red for deletions and Blue for changes.



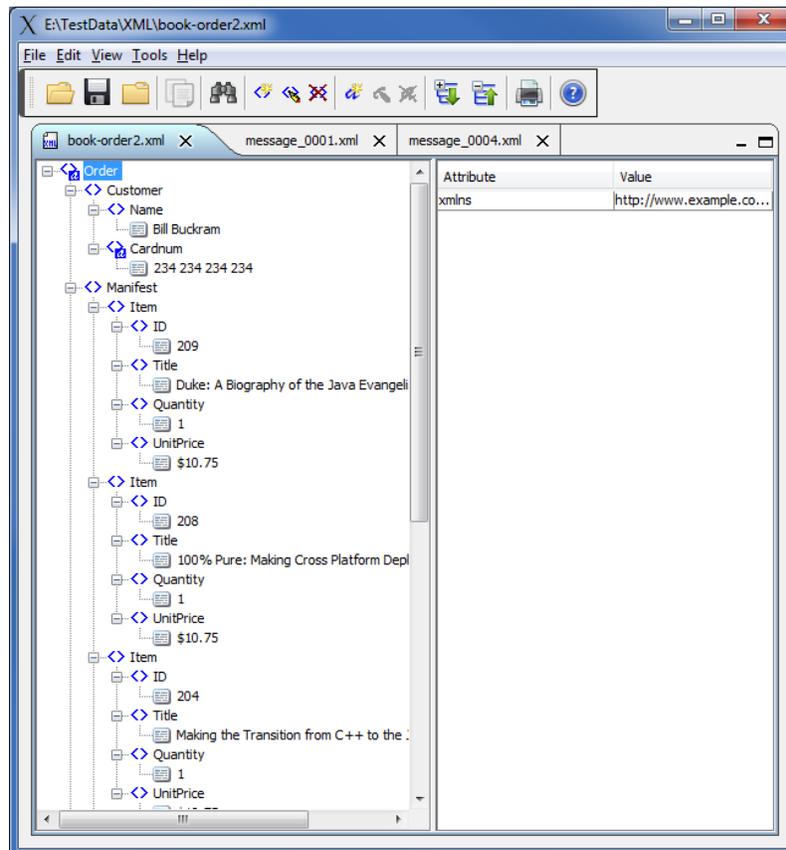
5.6 XML Editor

This section will describe how to invoke and use the XML Editor tool. The XML Editor is a simple multipurpose plain-text editor. The XML Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQAUSX-GUI.

From the main panel of MQAUSX-GUI, select **Tools**, then **XML Editor**.

This is the main panel of the XML Editor and it has 3 open files.



Supported features:

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

6 Miscellaneous

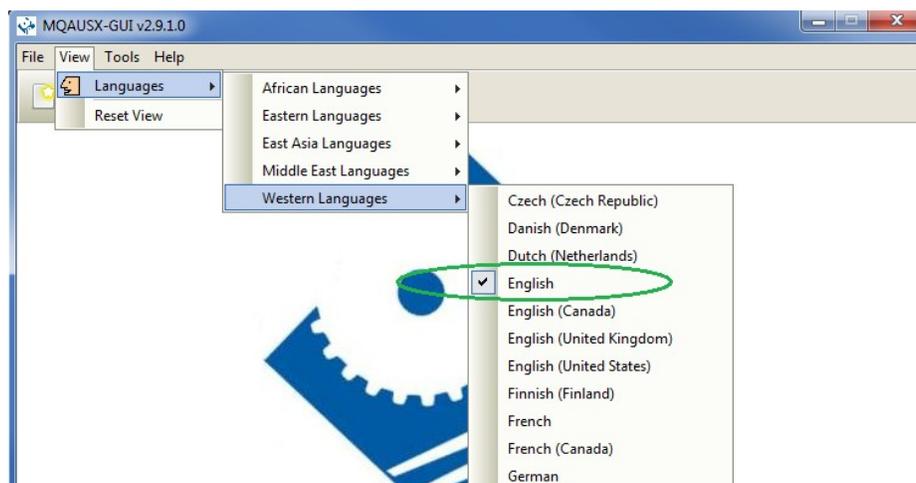
This chapter will describes how the miscellaneous features of MQAUSX-GUI.

6.1 Language

This section will describe how to switch MQAUSX-GUI's Language Text to another Language Text. MQAUSX-GUI has been designed to support Java's multi-language environment. Currently, MQAUSX-GUI has language support (menu items, buttons and titles) for the following 55 languages:

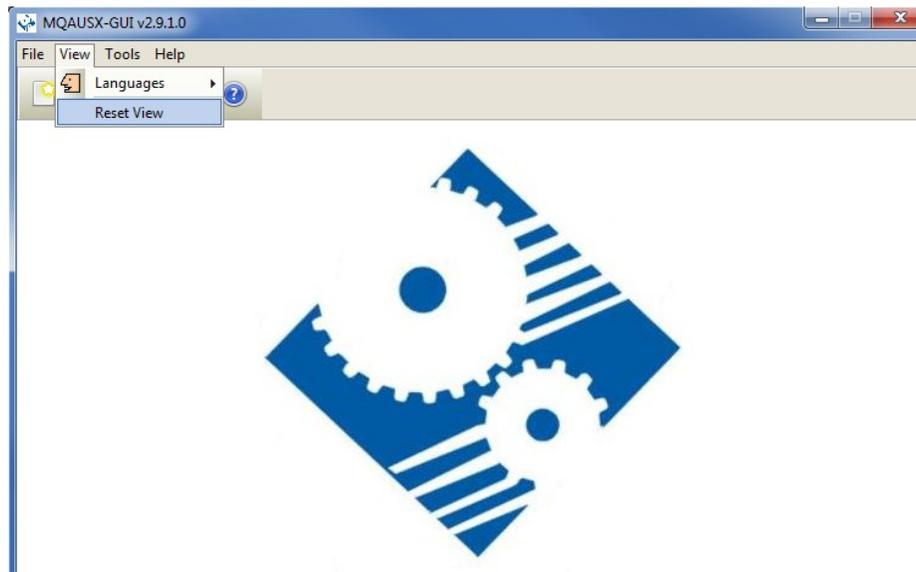
➤ Amharic (am)	➤ Hungarian (hu)	➤ Shona (sn)
➤ Arabic (ar)	➤ Igbo (ig)	➤ Sindhi (sd)
➤ Azerbaijani (az)	➤ Indonesian (in)	➤ Spanish (es)
➤ Bengali (bn)	➤ Italian (it)	➤ Sundanese (su)
➤ Cebuano (ceb)	➤ Japanese (ja)	➤ Swahili (sw)
➤ Chinese (China) (zh)	➤ Javanese (jv)	➤ Swedish (sv)
➤ Chinese (Taiwan) (zh)	➤ Kannada (kn)	➤ Tamil (ta)
➤ Czech (cs)	➤ Korean (ko)	➤ Telugu (te)
➤ Danish (da)	➤ Malay (ms)	➤ Thai (th)
➤ Dutch (nl)	➤ Malayalam (ml)	➤ Turkish (tr)
➤ English (en)	➤ Marathi (mr)	➤ Ukrainian (uk)
➤ Finnish (fi)	➤ Norwegian (no)	➤ Urdu (ur)
➤ French (fr)	➤ Panjabi (pa)	➤ Uzbek (uz)
➤ German (de)	➤ Pashto (ps)	➤ Vietnamese (vi)
➤ Greek (el)	➤ Persian (fa)	➤ Xhosa (xh)
➤ Gujarati (gu)	➤ Polish (pl)	➤ Yoruba (yo)
➤ Hausa (ha)	➤ Portuguese (pt)	➤ Zulu (zu)
➤ Hebrew (iw)	➤ Romanian (ro)	
➤ Hindi (hi)	➤ Russian (ru)	

From the main panel of MQAUSX-GUI, select **View**, then **Language**.



6.2 Reset View

This section will describe how to reset the view of MQAUSX-GUI if the display is not correct.



The user can also reset the view from the command line by passing in the **RG** parameter.

6.2.1 Windows Command Line

On Windows, issue the following command to reset the view of MQAUSX-GUI:

```
mqausxgui.exe RG
```

6.2.2 Linux and macOS Command Line

On Linux and macOS, issue the following command to reset the view of MQAUSX-GUI:

```
./mqausxgui.sh RG
```

7 Appendix A – Frequently Asked Questions (FAQ)

Q. Can IniFiles be create on Windows for MQAUSX on Unix?

A. Yes. Once the IniFile has been saved, the user can copy or ftp (in ASCII mode) the file to the remote server.

8 Appendix B – MQAUSX-GUI Upgrade Procedures

To upgrade an existing installation of MQAUSX-GUI, please do the following in the appropriate section below.

8.1 Windows Upgrade

- Stop all instances of MQAUSX-GUI
- Backup any MQAUSX-GUI data files in the MQAUSX-GUI install directory
- Go to the Windows **Control Panel** and select **Program and Features**
- Select MQAUSX-GUI and then click the **Uninstall** button
- Run the install program called: **mqausxgui-setup-withjre.exe**
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under **Start -> All Programs** called **MQAUSX-GUI**.
- Restore the MQAUSX-GUI data files if necessary
- To run MQAUSX-GUI, select the MQAUSX-GUI icon from within the MQAUSX-GUI folder.

8.2 Linux or macOS Upgrade

- Stop all instances of MQAUSX-GUI
- Backup any MQAUSX-GUI data files in the MQAUSX-GUI install directory
- Remove the installation i.e. `rm -Rf Capitalware/MQAUSX-GUI/`
- Unzip the file, open a shell prompt and execute the following commands:

```
unzip mqausxgui.zip
```

- When the unzip command has finished, there should be a directory tree as follows:

Capitalware/MQAUSX-GUI

- Change directory by typing the following:

```
cd Capitalware/MQAUSX-GUI
```

- Before running MQAUSX-GUI for the first time, you need to add the execute attribute to the mqausxgui.sh shell scripts. Type the following:

```
chmod +x mqausxgui.sh
```

- To run MQAUSX-GUI from the Capitalware/MQAUSX-GUI directory, then type the following:

```
./mqausxgui.sh
```

9 Appendix C – Support

The support for MQAUSX-GUI can be found at the following location:

Online Help Desk Ticketing System at

www.capitalware.com/phpst/

By email at:

support@capitalware.com

By regular mail at:

Capitalware Inc.
Attn: MQAUSX-GUI Support
Unit 11, 1673 Richmond Street, PMB524
London, Ontario N6G2N3
Canada

10 Appendix D – Summary of Changes

- MQAUSX-GUI v2.9.3
 - Fixed an issue with ‘AllowBlankUserId’ on the UserId tab
 - Fixed an issue with the Move Up & Move Down buttons on the UserId tab
- MQAUSX-GUI v2.9.2
 - Added the ‘Recent Files’ menu option under the File menu option.
 - Added images to buttons for more user-friendly display.
 - Added support for 55 languages for the menu options, buttons and titles (not IniFile keywords).
 - Added the ‘Reset View’ menu option under the View menu option.
 - Added 6 tools under the Tools menu option:
 - Compare File to a File
 - Hex Converter
 - Hex Editor
 - Tail File
 - Text Editor
 - XML Editor
- MQAUSX-GUI v2.9.0
 - Added support single or double quote on log message (new keyword: LogMessageQuote)
- MQAUSX-GUI v2.7.0
 - Added support log disconnect message (new keyword: LogDiscMessage)
 - Added support single or double quotes for log message (new keyword: LogMessageQuote)
 - Added support when the auxiliary memory is to be freed - immediately vs on termination (new keyword: FreeAuxOnTerm)
- MQAUSX-GUI v2.6.1
 - Added new keywords: UseCredentialCache, CacheLife & CacheSize
- MQAUSX-GUI v2.6.0
 - Added support for Queue Manager Password Authentication (new keywords: UseQMgrPwd & QMgrPwd)
 - Added support for Pluggable Authentication Modules (PAM) for Unix and Linux (new keywords: UsePAM & PAMService)
 - Ability to monitor for excessive client connections (ECC) and then generate an alert (new keywords: UseECC, ECCWarnCount & ECCInterval)
- MQAUSX-GUI v2.5.2

- Added new CheckFinalUserID keyword. It will take the final UserID and reprocess it against UseAllowUserID, AllowUserID, UseRejectUserID, RejectUserID and Allowmqm keywords.
- MQAUSX-GUI v2.5.1
 - Added UseMCCRedo flag to control MCCRedoCount, MCCRedoMinutes and MCCGetTimeOut
 - Added UserIDFormatting flag to force lowercase/uppercase/as_is UserID formatting on all platforms
 - Renamed AllowMQCSPAAuth flag to AllowPlainTextCredentials
- MQAUSX-GUI v2.5.0
 - Major layout of change
 - Added new keywords: SystemLogMessage, UseGroups, Groups, UseGroupFile, GroupFile, UseAllowHostByName, AllowHostByName, UseRejectHostByName, RejectHostByName, UseLDAPAuthCompare, UseLDAPUserIDSearch, LDAPUserIDSearchBase, LDAPUserIDSearchFilter, LDAPUserIDSearchScope and UseLDAPGroupSearchBindDN
 - Changed keywords UseLDAPSearch, LDAPSearchBase, LDAPSearchFilter, LDAPSearchScope to UseLDAPGroupSearch, LDAPGroupSearchBase, LDAPGroupSearchFilter, LDAPGroupSearchScope
- MQAUSX-GUI v2.2.5
 - Updated the layout of tabs
 - Added new keywords: UseQAS, UseCDC and UseLDAPSearchBindDN
 - Added new keywords: UseAllowHostname, AllowHostname, UseRejectHostname and RejectHostname
- MQAUSX-GUI v2.2
 - Updated the layout of tabs
 - Added new keywords: LicenseFile, UseLDAPBindDN, LDAPBindDN, LDAPBindPwd, SSLCertPwd, UseSSLCertUserID, AllowSSLSSCert, UseSSLUserIDFromDN, SSLDNAttrName, SSLDNAttrStartPos, SSLDNAttrLength, UseAllowSSLDN, AllowSSLDN, UseRejectSSLDN and RejectSSLDN
- MQAUSX-GUI v2.1
 - Added new keywords: UseLDAPSearch, LDAPSearchBase, LDAPSearchFilter, LDAPSearchScope and AllowUserAlterServerName
- MQAUSX-GUI v2.0
 - Updated the layout of tabs
 - Added new keywords: BackupLogFileCount, UseLDAPLoadBalance, UseRejectIP, RejectIP, UseRejectUserID, RejectUserID, UseRejectADName, RejectADName and MCCGetTimeOut
- MQAUSX-GUI v1.2.5

- Added new keywords: RotateLogDaily, WriteToEventQueue, EventQueueName, UseAllowADName, AllowADName, UseAllowUserID, AllowUserID and MCCEventWarnLevel
- MQAUSX-GUI v1.2
 - Updated default values for keywords.
- MQAUSX-GUI v1.1
 - Updated keyword display.
- MQAUSX-GUI v1.0
 - Initial release.

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